IN THE

Supreme Court of the United States

OCTOBER TERM 1977

No. 77-694

INTERNATIONAL BUSINESS MACHINES CORPORATION,

Petitioner,

—against—

GREYHOUND COMPUTER CORPORATION, INC.,

Respondent.

PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE NINTH CIRCUIT

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November 14, 1977.

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STATEMENT

Petitioner International Business Machines Corporation (IBM) respectfully prays that a Writ of Certiorari be issued to review the judgment of the United States Court of Appeals for the Ninth Circuit (Browning, Ch. J.) entered on August 17, 1977, reversing a judgment of the United States District Court for the District of Arizona (Craig, Ch. J.), entered on July 10, 1972.

OPINIONS BELOW AND JURISDICTION

Judge Craig's opinion, granting petitioner-defendant's motion for a directed verdict on all elements of respondent-plaintiff's Sherman Act Section 2 claim and its contract claim is reported at 1972 Trade Cases ¶ 74,205, and is attached as Appendix A. The opinion of the court of appeals reversing the decision of the district court on the Section 2 claim and affirming on the contract claim is reported at 559 F.2d 488 and is attached as Appendix B. The judgment below was entered on August 17, 1977; the

mandate of the court of appeals was stayed by order entered September 13, 1977, pending review by this Court. This petition is filed within 90 days of the judgment below, as required by 28 U.S.C. § 2101(c). This Court's jurisdiction is invoked under 28 U.S.C. § 1254(1). The antitrust statutes relating to this petition are contained in Appendix C.

QUESTIONS PRESENTED

The basic question is whether, given that the judgment below intimidates vigorous competition on the merits, burdens the lower federal courts and immediately harms numerous actual and potential defendants, including IBM, the judgment should promptly be reversed. Analytically the separate issues we raise as questions are:

1. Whether the court of appeals erred in holding that a jury could find that any firm could monopolize a "submarket" consisting of the leasing of computer equipment, separate from a "submarket" consisting of the sale of such equipment, where:

(a) the products in both "submarkets" are identical;

(b) all manufacturers of such equipment both sell and lease such equipment on a wide and changing variety of "sale" and "lease" terms and conditions;

(c) the customers in both "submarkets" are almost entirely the same and frequently both lease and purchase; and

(d) new "leasing companies" can enter, and large numbers have entered, the "lease submarket" in response to small changes in lease prices.

2. Whether the court of appeals erred in holding that a jury could find that IBM possessed monopoly power in the "lease submarket" almost entirely because IBM had a

large share of that narrowly defined "submarket", and that a jury could disregard—as did the court below—uncontroverted evidence of:

(a) rapid and numerous market and "submarket" entries;

(b) continuing, unprecedented product and price improvement;

(c) unique customer sophistication and independence;

(d) a constantly declining IBM share in the "lease submarket" and in any conceivable "market" or "submarket"; and

(e) an IBM share of the total market, from which the "lease submarket" was extracted, far too low to permit any inference of monopoly power.

3. Whether the court of appeals erred in holding that a jury could conclude that honest, competitive, non-predatory conduct constitutes monopolization under the Sherman Act if it "unnecessarily excludes competition",* and that such "otherwise lawful" conduct is proscribed even when it occurs outside the relevant market in a "market" in which the defendant possesses no power.

4. Whether the court of appeals erred in holding that a jury could find that IBM was liable for an attempt to monopolize where it was assumed that "the record would not support a jury finding of even a dangerous probability of monopolization" by IBM of any "appropriate market".

5. Whether the court of appeals erred in holding that plaintiff had offered sufficient evidence of damages to go to a jury, where plaintiff offered no testimony even attempting

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*This concept in Chief Judge Browning's decision of "unnecessary" exclusion seems part of the same approach which led Judge Browning to condemn "unnecessary restrictions" on the marketing of products—rejected by this Court in *Continental T.V., Inc.*, v. *GTE Sylvania, Inc.*, 97 S.Ct. 2549, 2553-54 n.10 (1977).

to calculate such damages and the jury would necessarily have been forced to engage in sheer speculation on the amount of any damage supposedly sustained.

STATEMENT OF THE CASE

This case is one of 19 private suits brought against IBM under Section 2 of the Sherman Act since the United States Government commenced its own Section 2 action almost nine years ago.* Most of the existing cases were filed after the district court's decision in *Telex Corp.* v. *IBM*, 367 F. Supp. 258 (N.D. Okla. 1973) and before the unanimous reversal by the Tenth Circuit Court of Appeals (510 F.2d 894, *cert. dismissed*, 423 U.S. 802 (1975)). Two groups of cases have been consolidated by the Multidistrict Panel.** Before the decision below, four cases had been tried† and IBM had won all four—three (including the instant case) by directed verdict or judgment at the close of plaintiff's case and one, *Telex* v. *IBM*, by the Tenth Circuit's unanimous decision.††

In all those decisions the courts involved have held that IBM has not violated Section 2 of the Sherman Act; they have rejected, as the district court did in this case,

*The trial in *United States* v. *IBM*, 69 Civ. 200 (S.D.N.Y.) commenced on May 19, 1975. As of November 11, 1977, the trial had consumed 407 days and the United States had not finished presenting its direct case. It will be a period of years before that case is ready for decision even by the district court.

***In re IBM Antitrust Litigation*, MDL 18; *IBM Peripheral EDP Devices Antitrust Litigation*, MDL 163.

†*Greyhound* v. *IBM*, 24 trial days; *Telex* v. *IBM*, 26 trial days; *Symbolic Control* v. *IBM*, Civil No. 71-2207 (N.D. Cal. Dec. 31, 1975), 27 trial days; *California Computer Products* v. *IBM*, Civil No. C73-2331-RM (C.D. Cal. Feb. 15, 1977), 58 trial days. Appeals are pending in the *Symbolic Control* and *CalComp* cases.

††The trial of another case, *Forro Precision, Inc.* v. *IBM*, Civil No. 74-1653 (N.D. Cal. Nov. 3, 1977), commenced on August 15, 1977, in the Northern District of California, and consumed 22 trial days. With respect to the antitrust issues there involved, the jury was unable to reach a verdict and on October 26, 1977, the court granted IBM's post-trial motion for a judgment on those issues.

all claims that IBM monopolized or attempted to monopolize in violation of that statute.

The record here, although made only by witnesses called by plaintiff (including deposition testimony by IBM officers and employees) and by stipulation, coupled with the decision in *Telex*, provides a fully adequate basis for sound resolution of the legal questions presented.*

THE PARTIES

A. IBM

IBM develops, manufactures and markets electronic data processing ("EDP") equipment and services. EDP equipment—commonly referred to as computers or computer systems—consists of a variety of electronic and electromechanical equipment organized in separate boxes ("hardware"). To make a hardware system operable, it must also receive, store and execute instructions called programs ("software") (Tr. 1466-72).

A customer may purchase or lease** a total system or parts thereof from IBM, or it may purchase or lease hardware and software from others, or it may purchase or lease different pieces of hardware from different manufacturers, interconnect those parts and create its own programs or obtain programs from still another source, including IBM, or it may lease computer time from others. The Court Census, stipulated into evidence,† shows that

*The record was completed more than five years ago and our statement necessarily speaks as of that time.

**IBM and most others offer a range of different types of lease and purchase arrangements, *e.g.*, "lease" (Tr. 3043-45), "risk lease" (Tr. 2587), "full payout lease" (Tr. 2585-88), "long term lease" (Tr. 3046-49), "installment sale" (Tr. 2855), "rental credit" (Tr. 717), and "sale" (Tr. 3048-49).

†This was a survey or "census" of the EDP industry (called the "Court Census") ordered by the Minnesota District Court when this case was consolidated for pre-trial purposes there under the style of *In re IBM Antitrust Litigation*, MDL 18. The census consists of sworn answers to questions posed by IBM and Greyhound concerning the revenues, products and services of approximately 1800 re-

customers may obtain EDP products and services from almost 1800 companies. IBM is the largest supplier of EDP products and services, having a share of revenues of approximately 35% in 1970. *Telex* v. *IBM*, 367 F. Supp. at 286

B. **Greyhound**

Greyhound Computer Corporation (Greyhound Computer), respondent-plaintiff below, is a computer leasing company. Such companies purchase computer equipment from manufacturers for re-lease to users.

Greyhound Computer is one of two commonly managed (Tr. 124-26, 960-61, 2482-83, 2488, 2610-12) leasing company subsidiaries of The Greyhound Corporation, a holding company. The other subsidiary, Greyhound Leasing & Financial Corporation (Greyhound Leasing), is the parent and creator by spin-off in mid-1966 of Greyhound Computer (Tr. 2776, 2806). Both subsidiaries provide convenient vehicles for utilization of The Greyhound Corporation's cash flow and, through the Investment Tax Credit (26 U.S.C. §§ 38, 46-50), tax shelters for Greyhound's otherwise taxable income (Tr. 551-53, 1221-25, 2500).

Greyhound Computer asserts that it prefers to engage in short term or "risk" leasing and that Greyhound Leasing prefers to engage in longer term or "payout" leasing (Tr. 2505-10). However, terms and conditions offered by both leasing company subsidiaries have from time to time been substantially the same (Tr. 2770-72) and neither "risk" nor "payout" has any precise meaning since all leases referred to in the testimony involved degrees of both "risk"

spondents, and all of the answers are in evidence here (Tr. 2929). This same census was stipulated into evidence in its entirety in *Telex* v. *IBM*. *See* 367 F. Supp. at 271 n.2. Most of the statistical data contained in the census was also in evidence in *CalComp* v. *IBM* in the data base of one of the plaintiff's witnesses.

and "payout".* In any event, the principal claim at trial was that IBM had precluded Greyhound Computer—but not Greyhound Leasing—from purchasing IBM EDP equipment announced in 1970 and after and leasing that equipment to others.

THE ELECTRONIC DATA PROCESSING INDUSTRY

It is not disputed that the EDP industry as a whole is one of the youngest, most dynamic and most vigorously competitive industries in the United States. Some of the highlights of the development of this industry, and IBM's participation in it—as attested to by Greyhound's witnesses—are summarized in Appendix D to this petition. The entire commercial existence of the EDP industry has not been appreciably longer than 20 years. Entry has been literally massive—from 11 firms to 1,757 in less than 20 years; the rate and magnitude of price declines have been unprecedented; technological innovations and product improvements virtually boggle the mind; price/performance has improved exponentially. These facts were given appropriate weight by the Tenth Circuit Court of Appeals in *Telex* v. *IBM* where IBM's acts were realistically viewed as "part of the competitive scene in this volatile business inhabited by aggressive, skillful people seeking to market a product cheaper and better than that of their competitors" (510 F.2d at 928). And they were acknowledged and relied on by the district court here which found that IBM's "[p]lace in the industry has been achieved as a result of superior skill, foresight and industry." (App. A, at p. 2a) For the very characteristics which make competitive markets socially and economically preferable from a policy standpoint are all evinced by the industry involved in this case. As one of Greyhound's expert witnesses testified:

*Greyhound Computer's President Bumpers admitted that the line between risk leasing and payout leasing "can get vague", that "there is no clearly definable line" (Tr. 2606).

> "[T]he computer industry has been the subject of a faster rate of technological progress in engineering accomplishment than perhaps any other industry in the history of human enterprise" (Tr. 1646).

And as Greyhound's principal expert witness concluded concerning the rapid rate of progress and accomplishment in the EDP industry:

> "[T]hat's a bonanza from the user's point of view . . ." (DX B-4, at p. 52) and "[t]hat is what vigorous competition is supposed to contribute to the marketplace . . ." (Tr. 3354).

We outline the direct evidence of substantial competition on the merits in an appendix (App. D) rather than in the body of this petition, because the Ninth Circuit Court of Appeals declined to take issue with it (App. B, at p. 17a) —indeed, the court below noted our position that price reductions and product improvements were "characteristics of the industry" but viewed those facts as essentially irrelevant or even negative (*id.*).

CHRONOLOGY OF RELEVANT EVENTS

April 7, 1964

IBM Announced System/360. IBM announced a new family of EDP equipment generally called System/360 or S/360 (Tr. 248-57; DX J).

October 1965

"Technological Discount" on S/360. IBM announced a purchase price discount of 12% for S/360 equipment leased one year or more (Tr. 71-72). Greyhound's trial counsel labelled this a "Technological Discount" and the court of appeals utilized that phrase. This discount plan was not thereafter changed (Tr. 1102-05), although purchase prices were twice thereafter (on 10/1/66 and 6/23/69 as explained below) reduced by 3%, bringing the total reduction of purchase prices to about 18% below the original announcement level.

June 1966

Plaintiff-respondent Greyhound Computer Created. Greyhound Leasing spun off a portion of its EDP leasing business into its newly created subsidiary Greyhound Computer (DX X, at p. 4). Prior to October 1, 1966, Greyhound Computer (or its predecessor) purchased approximately $13 million of System/360 equipment (Tr. 2793; PX 613).

October 1, 1966

IBM Price Adjustment. IBM raised lease prices and lowered purchase prices on all of S/360 by 3% (Tr. 2419-20), thereby lowering the so-called "multipliers" on S/360. Those S/360 multipliers were never thereafter raised or lowered in any significant way.*

June 23, 1969

IBM "Unbundled". IBM announced that it would thereafter make a separate charge for certain customer support services and that henceforth purchase and lease prices would be reduced 3% (Tr. 1077).

June 30, 1970

IBM Announced System/370. The first models of System/370, a new family of EDP equipment similar in breadth to S/360, were announced by IBM (PX 686, at p. 6). The relationship between lease prices and purchase prices on S/370 from announcement through trial below (two years and one month), both with and without con-

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*"Multipliers" are the ranges between lease and purchases prices for EDP equipment, expressed generally as the number of months' lease price which is equal to the purchase price. Leasing companies also make other such calculations, giving effect to such things as the cost of monthly maintenance, availability of the Investment Tax Credit and interest rates. New products were from time to time announced within the S/360 line with higher and lower multipliers but such new products were never more than a very small part of the total offerings at any point in time.

sidering maintenance charges, was substantially the same as the relationship which existed on S/360 equipment between announcement on 4/7/64 and the 10/1/66 price adjustment (two years, six months); that is, the multipliers on S/360 and S/370 were the same for the same respective periods.

DECISIONS BELOW

A. The District Court

The district court directed a verdict in favor of IBM on both plaintiff's contract claim* and its claim under Section 2 of the Sherman Act. The court found that plaintiff had failed to prove a single element of its Section 2 claim (App. A), and held explicitly that, "[a]ssuming that the defendant holds a substantial share of a market, whatever that market may be, it is the opinion of this Court from the evidence adduced thus far on the record that the defendant's place in the industry has been achieved as a result of superior skill, foresight and industry" (*id.*, at p. 2a).

B. The Court of Appeals

Five years later the court of appeals reversed the district court on the Section 2 claim although it affirmed the district court on the contract claim. (App. B)

The opinion laid out a basis for a jury verdict for plaintiff as follows:

1. *Relevant Market.* The court concluded "that the evidence was sufficient, though by no great margin, to permit the jury to find that the differences between leasing and selling general purpose computers were of sufficient

*On October 20, 1969, Greyhound Computer commenced an action against IBM in Illinois state court, alleging breach of contract arising out of IBM's announcement that it would charge separately for certain customer support services. The state court action was removed to federal court and later consolidated with this action, which was commenced on September 4, 1970.

significance to justify treatment of the two forms of distribution as distinct submarkets for competitive purposes" (App. B, at pp. 12a-13a). The following is to be noted with respect to that leasing "market":

(a) Plaintiff never claimed a "leasing" market, but only a "risk lease" market.*

(b) The EDP equipment manufacturers included within plaintiff's "risk lease" market employed the same sales forces to both sell and lease, at the user's option, the same EDP equipment and the same users often both purchased and leased the same models of equipment (DX K-4).

(c) The court of appeals repeatedly stated that defining a lease market separate from a purchase market was a close question (App. B, at pp. 10a-13a). In resolving that close question in favor of plaintiff, the court (i) characterized lease and sale—which are no more than financial alternatives concededly offered by all manufacturers and utilized by all customers—as "means" of distribution (App. B, at pp. 10a, 13a) and with that label invoked "distributor" cases in support of its analysis (App. B, at p. 10a n.8); (ii) brushed aside plaintiff's failure to offer any evidence of entry barriers or lack of supply substitutability with the statement—as if it were defendant's burden of proof—that "neither IBM nor the record suggests" that there were any alternative suppliers that "could have shifted their operations to such a business readily" (App. B, at p. 8a n.4); (iii) ignored the evidence of unprecedented supply substitution through prompt entry

*Indeed, Greyhound argued that "[a] full-payout lease is simply another means of financing an outright sale . . ." (GYH. App. Reply Br., at 8). The court expressly declined to rule on the risk/payout lease distinction asserted by Greyhound (App. B, at p. 13a n.15).

of some 120 firms which occurred after IBM increased the lease prices by 3% and reduced the purchase prices by 3% on S/360 in October 1966; and (iv) finally resolved the close question of market definition for plaintiff only because of "the weighty presumption in favor of a jury determination" (App. B, at pp. 10a, 11a).

2. *Possession of Monopoly Power.* Having carved a narrow "submarket" out of a broad competitive industry, the court of appeals placed its principal reliance for a showing of monopoly power on IBM's share of that "submarket" —a share which the court said had declined from 82.5% in 1964 to 64.6% in 1970 (App. B, at pp. 14a-15a). No significance was given to that loss of almost 20 percentage points in six years—a phenomenon wholly inconsistent with monopolization—nor to overwhelming direct proof of vigorous, continuing competition on the merits (*See* App. D).

3. *Wilful Acquisition or Maintenance of Monopoly Power.* The court flatly rejected any defense based on the fact that the acts at issue were " 'honestly industrial'—that is of a kind an ordinary enterprise might utilize with impunity" (App. B, at p. 18a). To the contrary, the court said, "[i]f the jury concluded IBM possessed monopoly power in the leasing of general purpose computers, IBM would be precluded from employing otherwise lawful practices that unnecessarily excluded competition from the submarket" (*id.*).

The specific acts which the court believed could be so condemned by a jury fit nowhere in almost a century of antitrust litigation. They are not, for example, claimed to have been below-cost pricing, even arguable violations of Section 1, or even anticompetitive *vis-à-vis* the preponderance of other companies with which IBM competes. Rather,

the claims upheld by the court were all founded on the fact that IBM either charged plaintiff somewhat more for equipment than plaintiff wished to spend, or charged users effectively less in monthly lease rates than plaintiff wanted to compete with. Specifically, the practices in question were:

(a) *"Technological Discount" Claim on S/360.* A 12% discount on installed equipment announced by IBM in October 1965 (almost a year before plaintiff was created) which plaintiff later utilized repeatedly on purchases from IBM, but which was not as high as the discount previously offered by IBM for older equipment. The court concluded that a jury could find that the 12% discount was not "economically justifiable" (App. B, at p. 22a), *i.e.*, that it might—or should—have been increased in the late 1960's to a level approaching or equal to the purchase discount offered on pre-360 equipment.

(b) *The "Unbundling" Claim.* In June 1969, IBM offered certain services for a separate charge and concomitantly reduced the lease and purchase prices 3%. Applying contract law, the court below affirmed dismissal by the district court because Greyhound had received exactly what it bargained for and had no right to complain about the separation of services or the 3% reduction. However, under the Sherman Act unbundling was found by the court to be "anticompetitive" because it "left the leasing companies with an inflated investment and lowered returns" (App. B, at p. 27a).*

*The decision's inconsistency on this point is actually more blatant. In characterizing plaintiff's proof in support of its breach of contract claim, the court of appeals stated:

"Viewed most favorably to Greyhound, the evidence showed only that some unspecified customers had bargained on an

(c) *The "Multiplier" Claim.* A relationship between IBM's sale and lease prices, attacked not on the ground that either price was in some sense "too high" or "too low", but on the theory that the *range* between the lease and purchase prices was in some sense "greater" than it had been on a prior line of equipment. The court here concluded that the "jury could have found that IBM did increase [the] multiplier" on System/370 over that which had applied to System/360 and that that "restricted" plaintiff's "access" to the market (App. B, at pp. 23a-24a). Had multipliers actually been increased, it would still be difficult to understand why IBM's offering of one multiplier on one line of equipment made actionable under the Sherman Act any change in that multiplier on a subsequent line of equipment. But the plain facts are, despite the court's confusion, that no multipliers at all were ever increased; no restriction on access ever occurred or was even remotely proven.*

(d) *The "Maintenance Price" Claim.* An increase in IBM maintenance charges which was done, according to the court, "despite decreased maintenance costs" (App. B, at p. 24a). The court's finding of "decreased

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individual basis for some unspecified allotment of only generally defined services, and that some undetermined portion of these services had been withheld." (App. B, at p. 40a)

Yet it was this "evidence" which was viewed in the same opinion as sufficient to uphold a jury verdict that IBM was guilty of a monopolistic practice in violation of the Sherman Act (App. B, at pp. 25a-27a).

*What the court apparently confused as an "increase" is that multipliers on S/360 were lower at the *end* of that product life than the multipliers on S/370 were at the *beginning* of that product life. But this much is not even debated: the S/370 multipliers were the same at the beginning of that product's life and at the time of trial as the S/360 multipliers were at the beginning of that product's life and at the time plaintiff came into existence.

maintenance costs" was conjured solely from the hypothesis that because each succeeding generation of IBM equipment was more reliable, it was "hence less costly to maintain" (*id.*). No such evidence was offered. In fact, the court's hypothesis flies in the face of common experience that labor intensive services, such as maintenance, have continually increased in cost and price in all areas of our economy irrespective of increases in reliability.

(e) *The "Fixed Term Plan" Claim.* In May 1971, IBM announced optional one- and two-year term leases for certain EDP equipment at discounts from IBM's monthly rental prices. This was the only aspect of Greyhound's antitrust claims concerning which the court of appeals held that a directed verdict had been properly granted (App. B, at p. 19a).

4. *What the Court of Appeals Calls IBM's General Defense.* IBM argued that even assuming Greyhound had defined a "lease" or "risk lease" "submarket", the acts complained of—failure to reduce the purchase price, the setting of the purchase price in the multiplier, and the separate charge for services and for maintenance on sold machines—were all practices which occurred in the "purchase submarket" and Greyhound had made no attempt to show that IBM had any kind of power in that market. Thus, none of the practices could possibly be considered instances of the exercise of monopoly power. The court elided the point of that argument, holding that Greyhound was "not required to prove the source of IBM's power . . . " (App. B, at p. 29a).

5. *Attempt to Monopolize.* Contrary to decisions by this Court and every other United States Court of Appeals,

the court below concluded that a plaintiff seeking to prove an attempt to monopolize need not show either "an appropriate relevant market" or "a dangerous probability of monopolization". The court explicitly assumed "that the record would not support a jury finding of even a dangerous probability of monopolization of an appropriate market" (App. B, at p. 30a). Nevertheless, it concluded that if the plaintiff could prove "the required specific intent" and "that any action by IBM was predatory in nature", an attempt to monopolize would be established (*id.*). The court took the same acts discussed in the earlier monopolization section of its opinion—which it had assumed were "not 'predatory' but 'honestly industrial'—that is, of a kind an ordinary enterprise might utilize with impunity" (App. B, at p. 18a), and here characterized those same acts as "anticompetitive activities that impaired competition without a legitimate business purpose" (App. B, at p. 32a).

6. *Damages.* Greyhound did not put on any witnesses to calculate, estimate or even approximate what damages Greyhound had suffered. However, the court fashioned a damage claim which Greyhound never made and which ignored the district court's conclusion that such an exercise would be "purely speculative".

REASONS FOR GRANTING THE WRIT

We wish to emphasize at the outset that we believe *certiorari* should be granted in this case not merely because each part of the judgment appealed from is wrong—and in direct conflict with the principles of antitrust law established by decisions of this Court and other circuits—but that, singly and in combination, the immediate effects of this judgment are intolerable.

The judgment appealed from, in total effect, condemns competition. If allowed to stand, it would make the Sherman Act a restraint of trade. If allowed to continue in effect even briefly, six other Sherman Act Section 2 cases, now pending against IBM in the already overburdened Ninth Circuit, will go forward at almost unimaginably high cost to litigants and courts—all threatened by a totally erroneous set of legal standards.*

The judgment below is wrong in its definition of a narrow product "submarket" in disregard of the uncontroverted facts of supply and demand substitutability. It is further wrong in its conclusion that a "share" of any such market is sufficient to establish "monopoly power" against the conceded fact of a precipitous decline in that "share" and against unchallenged proof of continuously improving price and product performance, ease of entry, actual entry and other direct evidence of vigorous competition (which this Court and others have previously deemed inconsistent with any such "power"). It is additionally wrong in holding actionable concededly lawful, honest business acts which might "exclude" competitors "unnecessarily". Indeed, the court held that normal competitive acts were unlawful if

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*Two of those decisions are now on appeal in the Ninth Circuit from directed verdicts in IBM's favor, including *California Computer Products v. IBM*, Civil No. C73-2331-RM (C.D. Cal. Feb. 15, 1977) in which IBM's motion for directed verdict was granted at the close of plaintiff's 58-day case. Retrial of *California Computer* would take more than 100 trial days. Retrial of the present case, *Greyhound*, would take more than 50 trial days. A third case in the lineup, *Memorex* v. *IBM*, Civil No. C73-2239-SC (N.D. Cal.), is now scheduled to be tried before a jury commencing in January for a period of at least ten months. While we believe and will urge that *California Computer* and *Memorex* should be resolved in IBM's favor even if the decision below stands, our opponents will and have urged the contrary. Thus, in its reply brief to the Ninth Circuit, California Computer began by stating that the court's decision in *Greyhound* "requires that CalComp be accorded a new trial." (CalComp. Reply Br., at 1)

"unnecessary" even if taken outside of the market in which the power supposedly exists and in a market in which no power is possessed or was even claimed—and that is a self-evidently erroneous proposition.

To ensure that such "otherwise lawful" competition will not escape the full penalties of the Act, even where the perpetrator does not hold a high share of a contrived "submarket", the court below makes it actionable as an "attempt to monopolize" without any showing of either relevant market or likelihood of success. That view, so patently unsound, which, as a practical matter proscribes almost any business conduct a jury does not like, conflicts with decisions of this Court and every other circuit court of appeals in the country.

To ensure that the penalty will be a sufficiently strong deterrent to engaging in such behavior, the decision permits treble damages to be based on extreme speculation and thus to be wholly unpredictable in amount. That holding is flatly inconsistent with a host of judicial decisions.

To ensure that such claims, no matter how tenuous, will still enable the less successful competitor-claimant to reach a jury with a "shot" at such speculative damages, the decision constructs a "weighty presumption in favor of a jury determination" which, coupled with a liability standard susceptible of meaning anything, is not merely "weighty" but insurmountable.

In short:

(1) a jury is free to find almost anything to be a "submarket" even if plaintiff fails to prove barriers to entry, and supply and demand substitutability are clearly present;

(2) a jury is free to find monopoly power almost solely from defendant's high, but rapidly declining share of such a "submarket";

(3) a jury is free to find virtually any honest, lawful practice "unnecessary" and hence a source of liability—and even to do so without any showing of relevant markets, any power of any kind or any likelihood of achieving it;

(4) a jury is free to construct damages out of anything and in any way it wants;

(5) all such questions are guaranteed to go to the jury under instructions which are vague and potentially all encompassing.

Surely the effect of such a decision is to spawn litigation by those unsuccessful in the competitive marketplace;* to impel successful companies to "soften" their competitive activities so as to avoid the expense and penalties of such litigation; and hence to suppress that "free and unfettered competition"** which the Sherman Act was enacted to protect and encourage. This effect inevitably follows from the decision below.

But the adverse impact of this decision is not confined to its intimidation of vigorous competition. Litigation inspired by the principles of this opinion will be typically massive and complex. However tenuous the plaintiff's proof may be, the possibility of a resolution by a court is virtually eliminated—the case must continue to a jury determination as to how narrow a market a jury may wish to define and whether the "exclusion" which inevitably occurred was "unnecessary". Since the application of such a novel, inherently ambiguous and undiscriminating standard to the sort of complex facts involved in such litigation is a process with which a jury trial cannot rationally cope, subsequent,

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*The possibility always exists that a jury may be confused by complex facts and incomprehensible guidelines, and there the capture of unearned profits will be trebled. Indeed, for many companies the potential for success may be much higher in litigation than in the marketplace.

**_Northern Pacific Ry._ v. _United States_, 356 U.S. 1, 4 (1958).

inevitable appeals in search of an intelligible standard will plague the courts of appeals.

As noted above, there are six such actions pending against IBM in the Ninth Circuit alone, one of which, a jury trial of at least ten months duration, is set to commence in January, and the others are to follow. If this case goes back for trial, it too will last for many weeks and months. If the plaintiffs succeed in persuading those courts that standards enunciated in this opinion control those cases, huge private and judicial resources, costing many millions of dollars, will be squandered in those trials and appeals —for, we believe, this Court will not ultimately tolerate these standards.

Counsel for the plaintiff in *CalComp* v. *IBM* (which was dismissed at the close of plaintiff's case after 58 days of trial) has recently proclaimed to the Ninth Circuit in the reply brief on appeal that the rulings in *Greyhound* squarely conflict with the Tenth Circuit rulings in *Telex*.* Certainly they are inconsistent with decisions of this Court and other circuits. They disrupt the pro-competitive stream of antitrust decisional law in this country. There are compelling reasons for granting this petition and rejecting these erroneous standards right now.

THE BASIS UPON WHICH THE COURT CONCLUDED A JURY COULD SEPARATE A "LEASE SUBMARKET" FROM A "PURCHASE SUBMARKET" IS WITHOUT LEGAL JUSTIFICATION.

In defining the relevant market, the court below resolved a "close question" in favor of a "lease submarket" only with the aid of a "weighty presumption in favor of a

*Indeed, CalComp goes so far as to say:

> ". . . *Telex* has arguable validity *only if* this Court is willing to hold that the *Greyhound* opinion misstated the law with respect to acquisition and maintenance of monopoly power and the acts permitted to a monopolist." (CalComp Reply Br., at 12)

jury determination" (App. B, at p. 11a).* But to distinguish a "lease submarket" from a "purchase submarket" is no mean trick. The products in both "submarkets" are not merely "reasonably interchangeable" (*United States v. E. I. DuPont de Nemours & Co.*, 351 U.S. 377, 395 (1956))—they are identical; generally, the same customers both purchase and lease the same models of equipment at the same time; and all the manufacturers of EDP equipment both sell and lease their products (Tr. 3020). The only difference between the two "markets" is the timing of payment to the supplier** for the use of the same equipment. There are no other differences of any kind, and however one exercises one's imagination, no other differences can be perceived.†

To Judge Wyzanski in *United States* v. *United Shoe Machinery Corporation*, the difference between payment by lease and purchase hardly created two distinct markets. He

*The court of appeals actually defined the market as that for the leasing of "general purpose digital computers for commercial applications" (App. B, at pp. 9a-10a). The court stated that "IBM does not challenge the adequacy of Greyhound's evidence to establish a market limited to general purpose digital computers for commercial applications" (App. B, at p. 8a). That is not true. Greyhound did not claim any such market, nor did it offer any proof of such a market. IBM made no effort to refute such a contention simply because there was none. Had such a contention been made, we would have opposed it vigorously.

**Even the timing of payment by the customer for the use of computer equipment is not necessarily a function of whether the equipment is purchased or leased. A purchase transaction, for example, may be financed by the customer's time payments to a bank. Conversely, a supplier may not receive the full purchase price when equipment is sold; for example, IBM offers to sell equipment under an instalment payment plan spreading payment of the purchase price over a multi-year period and to credit a percentage of lease payments already made to the purchase transaction.

†Title does pass from the supplier in a sale or instalment sale, but who in effect "owns" or has a priority interest in the equipment will vary depending upon how the transaction is financed—it could be the supplier itself, a bank, the customer, or some combination.

ordered the defendant to sell its machines as well as lease them in order to create more opportunities for United Shoe's shoe machinery competitors and thereby to diminish United Shoe's market power (110 F. Supp. at 349-50).

To the Ninth Circuit in this case, in contrast, the difference in timing of payment was itself sufficient to create a distinct market. The court concluded:

> "On this record a jury could infer that the need for flexibility governed the choice between a lease and purchase, and that there was substantial customer resistance to shifting from one to the other." (App. B, at p. 12a)

In effect, the court was saying that the record was adequate to support a jury finding that demand substitutability between lease and purchase was sufficiently low to separate purchase and lease of the same product into different "submarkets". For low demand substitutability to have been proven—and clearly plaintiff had the burden of so doing—required evidence, at minimum, that a legally significant number of customers so strongly preferred lease to purchase as to render purchase an inadequate substitute without a drastic narrowing of the monthly-rental-price/purchase-price ratio. Plaintiff produced no evidence even remotely establishing that proposition; on the contrary, it was clearly established that customers Greyhound labelled as "purchase prone" both leased and purchased the same kinds of EDP equipment at the same points in time (DX K-4). Common experience demonstrates that a given decision to lease or purchase is primarily dependent upon constantly changing factors such as availability of capital, interest rates, tax provisions and the like. No effort was made to deal with any of those factors.

But even more glaring was the error of law the court committed in drawing a market definition line between

lease and purchase when the obvious supply substitutability between the two makes any such line nonsensical.

Market definition is simply a construct for the measurement of monopoly power, which, in essence, is the power to raise price without attracting entry. Such a power may be checked *either* by the ability of customers readily to switch to a substitutable product (demand substitutability) *or* by the ability of other sellers readily to make or offer the same or an interchangeable product when the incentive to do so exists (supply substitutability). Since a high rate of *either* demand or supply substitutability will constrain the power of the subject firm to increase price, a product market definition which does not include both the interchangeable product and that potentially offered by such other suppliers will not sensibly test for monopoly power.*

The court below (App. B, at p. 8a n.4) expressly recognized that any market line based solely on low demand substitutability was obliterated in fact and law by high supply substitutability. In addition to citing several of the many decisions to that effect by this Court and other federal tribunals, the court below stated:

> "Attempts to exclude competition or control prices may also be checked if other suppliers shift their production facilities to the product in question." (*Id.*)

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*See, e.g., *United States* v. *Penn-Olin Chemical Co.*, 378 U.S. 158, 173-74 (1964); *Brown Shoe Co.* v. *United States*, 370 U.S. 294, 325 n.42 (1962); *United States* v. *Columbia Steel Co.*, 334 U.S. 495, 510-11 (1948); *Yoder Bros., Inc.* v. *California-Florida Plant Corp.*, 537 F.2d 1347, 1368 (5th Cir. 1976), *cert. denied*, 429 U.S. 1094 (1977); *Calnetics Corp.* v. *Volkswagen of America, Inc.*, 532 F.2d 674, 691 (9th Cir.), *cert. denied*, 429 U.S. 940 (1976); *Twin City Sportservice, Inc.* v. *Charles O. Finley & Co.*, 512 F.2d 1264, 1271-73 (9th Cir. 1975); *Telex Corp.* v. *International Business Machines Corp.*, 510 F.2d 894, 916-17 (10th Cir.), *cert. dismissed*, 423 U.S. 802 (1975); *Mullis* v. *Arco Petroleum Corp.*, 502 F.2d 290, 296-98 (7th Cir. 1974).

Immediately thereafter, however, the court appeared totally to have misconceived the point.

First, the court suggested that it was IBM's burden to prove the degree of cross-elasticity of supply rather than a part of plaintiff's burden of establishing a relevant market (App. B, at p. 8a n.4). Such a shift in the burden of proof is plainly wrong. *See Mullis* v. *Arco Petroleum Corporation,* 502 F.2d 290, 296 (7th Cir. 1974).

Secondly, the court stated that supply substitutability would be present only if "industries not presently engaged in the leasing of general purpose commercial systems could have shifted their operations to such a business readily" (App. B, at p. 8a n.4). That misses the point entirely. In determining whether leasing is an appropriate market, the primary issue is not merely whether companies not presently leasing EDP equipment could readily shift "operations". Rather, the dispositive question of supply substitutability is whether the same manufacturers who *already* both lease and sell their equipment could, if IBM raised its lease prices, compete with IBM by readjusting their lease prices or otherwise emphasizing lease transactions so as to make it more attractive to potential users to lease their equipment rather than purchase it. Obviously, substitution can be achieved by any manufacturer with the stroke of a pen, without shifting any "operations" whatever. That plaintiff offered no evidence to the contrary is hardly surprising; total supply substitutability from sale to lease is a self-evident proposition.

Moreover, plaintiff made no effort to establish that its proffered market included all or substantially all of the firms reasonably able to satisfy consumer demand for "risk lease" (or, as the court defined the market, "lease")

financing; nor did Greyhound even attempt to suggest why financing and other institutions could not easily satisfy such demand.* Obviously, since the role of the leasing company is strictly a financial one (*see* p. 6 *supra*) any bank, insurance company, leasing company dealing in other products (*e.g.*, airplanes) or other financial enterprise can enter with ease (and, as Greyhound Computer and other leasing companies freely assert, they compete with those financial institutions in leasing computer equipment). *See, e.g.*, DX X at p. 13; Tr. 598-99; DX Z-1 at pp. 11-12; Tr. 1834.

The president of Greyhound Computer at the time the action was commenced testified that, in 1966, there were 15 to 30 leasing companies who bought EDP equipment and leased it in competition with IBM (Tr. 588-89). In October 1966, IBM raised the lease price on most of its EDP equipment by 3%.** An immediate influx of leasing companies followed. The president testified that by 1969 there were between 120 and 150 such leasing companies (excluding banks and financial institutions) (Tr. 590), and the record shows that those leasing companies in 1967, 1968 and 1969 purchased some two billion dollars of EDP

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*In *United States Steel Corp.* v. *Fortner Enterprise, Inc.*, 429 U.S. 610 (1977), this Court recently addressed, in a tie-in context, the issue of economic power in a financing market similar to the "leasing" market involved in the present case. The Court there stated that where "there is nothing to suggest" that competing sellers and other lenders were unable to offer comparable financing if they chose to do so (*id.* at 622 & n.15), plaintiff's failure to offer evidence of such inability is fatal to its market power claim. Greyhound's proof at trial was defective in precisely the same fashion, but the court below held the defect to be of no consequence.

**Furthermore, in March 1967, the Investment Tax Credit (26 U.S.C. §§ 38, 46-50) was reinstated after a suspension of approximately 6 months. That reinstatement provided leasing companies and other purchasers of certain EDP equipment with a 7% tax credit, the effect of which was to provide a substantial discount on certain purchases, and hence yet another incentive to purchase EDP equipment for use in leasing to EDP users.

equipment and leased that equipment in competition with IBM* (App. D).

To regard lease and purchase transactions as "means" or "forms" of distribution, as the court below did (App. B, at pp. 10a, 12a-13a), is neither analytically sound nor pertinent to the undisputed—indeed, indisputable—fact of supply substitutability between the two. The court adopted that characterization as a peg for citing distributor cases that focus upon different means of distribution as a basis for defining different markets (*see* App. B, at p. 10a n.8). Those cases and that characterization are inapposite; neither IBM nor its competitors use distributors at all, let alone any different means of distribution. Common parlance, we submit, would not refer to the method of financing as a "means of distribution" and we have found no reported decision or other precedent which supports such a use of the term. We urged that the only distinction between lease and purchase was a method of financing and that that was not a valid basis for defining a relevant market. The court below enigmatically disposed of that argument as follows:

> "IBM argues that both leasing and buying are merely methods of financing the use of computer systems. However, the Sherman Act cannot be avoided by classifying the commercial activity involved as financing." (App. B, at p. 12a)

We never suggested any such avoidance. We did suggest strongly that such a distinction is neither adequate nor rational as a basis for segregating into separate markets products which are in all respects identical, marketed by the same companies to largely the same users, and as to which supply substitutability from sale to lease is immediate,

*The record also was replete with evidence of numerous and major corporations from other industries entering into the EDP business and into direct competition with IBM in the leasing of EDP equipment (*see, e.g.*, DX C-4).

effortless and total—indeed, the ability to shift is self-evidently possessed by every company whose identical sold products were excluded by the court's definition from the market it found to exist.

We submit that if a jury were nevertheless instructed that such a market might be defined on this sort of record, then juries may be permitted to find any kind of market under any set of circumstances, for a "relevant market" under this decision is anything a jury chooses to say it is.

THE COURT BELOW INCORRECTLY HELD THAT A JURY COULD INFER MONOPOLY POWER FROM IBM'S SHARE OF THE NARROWLY DEFINED "LEASE" SUBMARKET

Also warranting review is the court of appeals' error in viewing "share", however calculated, in any market however defined, as dispositive of the question of monopoly power.

We will not discuss here the many arithmetical fallacies engaged in by Greyhound to construct IBM's purported submarket "share" which the court below accepted, or how the *leasing* revenues of companies within the court's "lease submarket" (but outside Greyhound's proffered "risk-lease submarket") were somehow omitted from such "shares". The fact is that, using the same Court Census data stipulated into evidence in this case, both the district court and Tenth Circuit Court of Appeals concluded in *Telex* that IBM had only a 35.1% share of the EDP market (*see* p. 6 *supra*). Of course, the walling off entirely of the total EDP revenues of some 1,800 companies shown in that census, and the inclusion of the lease revenues only of the 101 companies selected by Greyhound, were achieved mainly by the market definition error discussed in the preceding section of this petition.

Even assuming that a rational computation of "share" was made and an economically meaningful market defined, the fact remains that the court below barely paused to con-

sider IBM's loss of almost 20% of such a "share" in the so-called "lease submarket" between 1964 and 1970. Such a phenomenon is, we believe, so unlikely to occur in a monopolized market that a strong inference should arise that something fundamental is wrong with the analysis. But the share figures were plainly talismanic and thus decisive to the court below, since the other evidence cited in support of an inference of monopoly power is trivial.*

The commitment to share as the critical determinant of market power is erroneous in law precisely because it blinds the court to the sort of direct evidence of vigorous, healthy competition—entry, product and price improvement, customer sophistication and sovereignty both within

*It was also badly misunderstood. For example:

(1) The court stated that the evidence indicated IBM "never set a price simply to meet competition" (App. B, at p. 16a). However, the only two witnesses to address that issue gave testimony of a far different nature. Mr. Cary testified that IBM offered superior price performance as compared to its competitors, not that it priced its products above its competitors (Tr. 3376-78). Mr. Watson's testimony was taken out of context. He testified that IBM did not simply meet its competitors' prices but that "IBM has always reflected upon competitive prices in setting prices on our machines" (Tr. 3697).

(2) The court stated that IBM's prices "were 5 to 15 percent above those of the best of its competition" (App. B, at p. 16a). But, again, the witness (Mr. Cary) testified that IBM's *price performance* was superior to that of its competitors, by a range of 5 to 15 percent, not that IBM prices were higher than those of its competitors (Tr. 3376-78).

(3) The court stated that "IBM's senior vice president testified that rental prices of some models could be increased without proportionate decreases in demand." (App. B, at p. 16a) In fact, that witness testified that in deciding whether to increase certain rental prices, "I know that we looked at what the result in pricing —price performance structure would be versus all of our competitors. . . ." His further testimony—that "rental demand was inelastic" after a 3% price increase—followed immediately thereafter and was clearly premised on IBM's superior *price performance* (that is, the quality and amount of performance per unit of price), even after that price increase, as compared to its competitors (Tr. 3448).

and surrounding the narrow submarket segment—that this record so overwhelmingly establishes (App. C).

It is also, of course, completely inconsistent with this Court's decison in *United States* v. *General Dynamics Corp.*, 415 U.S. 486, 498-501 (1974) and *United States* v. *Columbia Steel Co.*, 334 U.S. 495, 533 (1948), and with other decided cases. *See, e.g., United States* v. *International Harvester Co.*, 274 U.S. 693, 708-09 (1927); *Cole* v. *Hughes Tool Co.*, 215 F.2d 924, 938 (10th Cir. 1954); *Travelers Insurance Co.* v. *Blue Cross*, 481 F.2d 80 (3d Cir.), *cert. denied*, 414 U.S. 1093 (1973).

The court below recites IBM's contention "that price reduction and product improvement are characteristics of the industry and are inconsistent with the existence of monopoly power" (App. B, at p. 17a). It is nowhere suggested that this contention is in any sense flawed or unsupported by the record—indeed the district court held "that the evidence [was] insufficient to submit the question as to defendant's control or ability to control the market regardless of its purported share thereof" (App. A, at p. 2a). Instead, and necessarily, those characteristics of the industry and IBM's position in it are treated as accurate by the court of appeals—and then effectively ignored. Heretofore, however, all learning in the case law has instructed that price reduction and product improvement are the antitheses of monopolized industry phenomena and precisely what the competitive system is supposed to generate and the Sherman Act to ensure. Hence Judge Hand's classic distinction between the monopolized and the competitive industry:

> "Many people believe that possession of unchallenged economic power deadens initiative, discourages thrift and depresses energy; that immunity from competition is a narcotic, and rivalry is a stimulant, to industrial progress; that the spur of constant stress is necessary to counteract an inevi-

> table disposition to let well enough alone." *United States* v. *Aluminum Company of America,* 148 F.2d 416, 427 (2d Cir. 1945).

It is the "constant stress" which makes a firm unable to "let well enough alone" that compels price reduction and product improvement; that compulsion is competition, and the result is to provide consumers with exactly what our economic system is designed to produce.

The court below finds no such virtues in price reduction and product improvement. Necessarily conceding that the record is replete with such proof (*see* App. D), the court disposes of the evidence—and the importance—of competition with two sentences: First, with respect to product improvement,

> "But rapid technological progress may provide a climate favorable to increased concentration of market power rather than the opposite." (App. B, at p. 17a)

Secondly, with respect to price reduction,

> "[A] decline in prices does not necessarily imply an absence of monopoly power; a fair profit might have been made at even lower cost to users. *See United States v. Aluminum Company of America,* 148 F.2d 416, 427 (2d Cir. 1945)."* (*Id.*)

*The court's reliance on *Alcoa* as support for its rejection of declining prices as disproof of monopoly power is misplaced. In *Alcoa,* Judge Hand reasoned that the "narcotic" of monopoly, so clearly present in that case, is to be condemned even if "the monopoly has not been used to extract from the consumer more than a 'fair' profit" (148 F.2d at 427). The court was not there faced with a striking record of declining prices and rapidly improving price performance; the court was not there saying, as the Ninth Circuit has said, that monopoly power is not disproved because price performance improvements could possibly have been more extraordinary. On the contrary, Judge Hand merely observed that where the "stimulant" of "rivalry" is missing from an industry, as was the case in *Alcoa,* the fact that extraordinary profits have not been extracted from consumers does not dispose of liability under the Sherman Act.

In support of the first assertion, the opinion refers to two quite thin and hardly relevant law journal articles (App. B, at p. 17a n.21).* Judge Hand, normative economic analysis, the record of extraordinary product innovation in this case, and the dramatic loss of IBM's "share" in whatever "market" one cares to carve out of the Court Census data—all speak eloquently to the contrary effect insofar as the EDP industry is concerned.

Whether or not a continuing decline in prices over a twenty year period is sufficient to disprove the existence of monopoly power, the court's second assertion—that a court or jury should undertake to determine whether profits are "fair" or fairer profits might have been achieved—would, if ever attempted, cause the greatest confusion and difficulty.

This Court's familiarity with administrative rate making should, we believe, leave it with substantial incredulity that a jury could master such an undertaking or should ever be asked to do so. A jury could never—we believe—evaluate the "fairness" of any particular price change without reviewing at least the whole pricing structure of defendant and plaintiff and perhaps that of the whole industry.

In sum, the court below exalted the significance of even a rapidly declining share of an artificial "lease submarket" over direct, uncontroverted proof of massive, continuous new entry and vigorous price and product competition in that defined "submarket". Ease of entry, price reduction, product improvement—that's competition. To set aside all

*A curiosity is that one of those articles reviews the decision of the Court of Appeals for the Tenth Circuit in *Telex* v. *IBM* which, relying upon the same Court Census and the same type of extensive proof of price reduction and product improvement, found for IBM on all the elements of monopolization and attempt to monopolize on which the court below found against IBM. Notably, the court below does not otherwise mention *Telex* v. *IBM*.

proof of it in favor of a mechanistic analysis based merely on "share"—and a rapidly declining "share" at that—is to lose sight of the very reasons for which the statute was enacted.

THE COURT BELOW BROADLY CONDEMNS LEGITIMATE COMPETITION

Having thus found monopoly power in a narrow slice of a vigorously competitive market, the court announced and applied a test which proscribes virtually all legitimate competition by IBM.

The court below concluded that IBM cannot engage in the kind of business conduct "an ordinary enterprise might utilize with impunity" because "if the jury concluded IBM possessed monopoly power in the leasing of general purpose computers, IBM would be precluded from employing otherwise lawful practices that unnecessarily excluded competition from the submarket"* (App. B, at p. 18a). The court's application of this stated rule makes plain that it is intended to be just as broad and sweeping as it sounds.

Thus, the court has not only prohibited legitimate practices in general terms, but specifically condemns under the Sherman Act as "anticompetitive" as to plaintiff the very action—IBM's 3% sales discount coincident with "unbundling"—which it finds fully justified in contract law and concedes "may have been pro-competitive"** *vis-à-vis* most

*The court of appeals apparently was interpreting language in *United States* v. *United Shoe Mach. Corp.*, 110 F. Supp. 295, 344-45 (D. Mass. 1953), *aff'd per curiam*, 347 U.S. 521 (1954). That language, however, is inapposite here. *United Shoe* involved, among other practices wholly dissimilar from anything evidenced by the present case, the defendant's insistence on only leasing its products, only leasing them long-term, and then charging a penalty on cancellation for replacement with a competitive machine that was more than the lessee would have had to pay had it simply returned the equipment and gone out of business. We do not understand that decision nor any decision of this Court as legislating "soft" competition by broadly condemning legitimate competitive activity.

**We take "pro-competitive" to mean simply legitimate competition which, in this instance, created new marketing opportunities for IBM and for others as well.

actual or potential suppliers. Of course, one could only expect chaos in the minds of jurors faced with this anomaly. On the one hand, under the court's analysis IBM plainly would be entitled to a peremptory jury instruction that there was no breach of contract because Greyhound received the benefit of the bargain it struck. On the other hand, the jury could still find against IBM—and award treble damages—on the theory that it was not "necessary" for IBM to do what it did.

Consider also the mindless exercise—for all involved—in trying to determine whether it was "unnecessary" for IBM not to increase its 12% "technological discount" still further at some point in time despite the subsequent 3% purchase price reduction in 1966 and the 3% general price reduction in 1969.

The court also erred in its proscription of honestly competitive practices which took place outside the defined "submarket". Of course, there are cases, such as *United States* v. *Griffith*, 334 U.S. 100 (1948), which hold that the use of power in a monopolized market to impair competition outside the monopolized market may be a proper basis of liability and the court cites some such cases. Strangely, the court cites those cases here for a proposition which is the obverse of that for which they stand. No prior case holds that legitimate, competitive acts conducted *outside* the allegedly monopolized market constitute monopolization of that market. Indeed, it makes absolutely no sense to reach such a conclusion. However, that is exactly the conclusion reached below.

Thus, we pointed out that, assuming acceptance of Greyhound's separate lease and purchase markets, IBM's acts in setting and lowering the purchase price—the "multiplier", "technological discount" and "unbundling" issues—were all actions taken by IBM in what Greyhound called the separate "purchase market" and that no effort had been made to prove that IBM had any power in such a market. To that—we believed dispositive—contention the court of

appeals, inappositely citing *Griffith* and its progeny, responded: "Greyhound was not required to prove the source of IBM's power to do what Greyhound's evidence indicated IBM in fact did." (App. B, at p. 29a)

We thus reach a point where if a plaintiff convinces a jury that a defendant has a high share of market A and takes a legitimate business act in market B, where it has no power, a plaintiff may recover if it can show it was in some way affected thereby. It should be clear that something has gone wrong with the analysis.

We think that when the court reached this point in its analysis it found the extremely artificial distinction between lease and purchase "submarkets" untenable. We do too, but the court cannot have it both ways. If the markets are separate, those acts in the purchase submarket cannot form the basis for liability. If those acts could create liability, the markets are not separate. Thus, if one says that purchase price changes affect the amount of equipment which will be leased, one is saying that there is cross-elasticity between lease and purchase, *i.e.*, they are not distinct "submarkets".

Finally, the court suggests one further extension of its proscription of legitimate business conduct. If one reads together (as lawyers advising clients about this decision must) (a) the language concluding that "otherwise lawful practices that unnecessarily exclude competition from the submarket" are forbidden, with (b) the language rejecting direct proof of competition through price reduction and product improvement by impugning technological progress which "may provide a climate favorable to increased concentration of market power", one must necessarily conclude that product innovation may be banned under the court's test. We doubt the court intended such a result, but that contention is presently being urged against IBM in other lawsuits.

The result of the court's test, then, is simply to say to a large, dynamic corporation which routinely announces significant product and price improvements that it must soften up and slow down the competitive pace if its rivals may be unable to keep up. If such a corporation is counseled that it should move slowly and then only to meet the actions of its competitors, surely those competitors will recognize that competition has been shackled and will not provoke competitive responses.

But courts have time and time again recognized that competition on the merits is what the antitrust laws were intended to foster and that, as Judge Hand stated in *Alcoa*, "[t]he successful competitor, having been urged to compete, must not be turned upon when he wins" (148 F.2d at 430). Even where monopoly power has been established, or assumed for purposes of argument, courts have refused to proscribe legitimately competitive conduct. *See, e.g., Brunswick Corp.* v. *Pueblo Bowl-O-Mat, Inc.*, 429 U.S. 477, 488-89 (1977), where in ruling that "an illegal presence in the market" cannot result in an award of treble damages without proof that plaintiff's claimed injury "flows from that which makes defendant's acts unlawful", this Court stated:

> "[T]he damages respondents obtained are designed to provide them with the profits they would have realized had competition been reduced. The antitrust laws, however, were enacted for the protection of *competition*, not *competitors*. . . . It is inimical to the purposes of these laws to award damages for the type of injury claimed here."

To the same effect, the Tenth Circuit held in *Telex* v. *IBM*, 510 F.2d at 927:

> "There must be some room to move for a defendant who sees his market share acquired by re-

search and technical innovations being eroded by those who market copies of its products. It would seem that technical attainments were not intended to be inhibited or penalized by a construction of section 2 of the Sherman Act to prohibit the adoption of legal and ordinary marketing methods already used by others in the market, or to prohibit price changes which are within the 'reasonable' range, up or down."*

But the court below has followed a different course in its analysis of Section 2 of the Sherman Act. It is protecting a competitor at the obvious expense of competition, better products and lower prices. It is doing so by injecting into the bloodstream of competition that narcotic which Judge Hand long ago condemned—the narcotic which deadens the competitive nerve and seduces enterprises to "let well enough alone".

THE NINTH CIRCUIT'S RULE ON ATTEMPT TO MONOPOLIZE IS FLATLY INCONSISTENT WITH DECISIONS OF THIS COURT AND WITH DECISIONS IN ALL OTHER CIRCUITS.

Every United States Court of Appeals, with the exception of the Ninth Circuit, has held or stated that, in order to make out a prima facie case of attempt to monopolize, a plaintiff must prove (in addition to specific intent to monopolize and predatory conduct) both a relevant market and that the defendant had a dangerous probability of succeed-

*See also *Pacific Engineering & Prod. Co.* v. *Kerr-McGee Corp.*, 551 F.2d 790, 795 (10th Cir.), *cert. denied*, ____ U.S. ____ (1977); *International Air Indus., Inc.* v. *Amer. Excelsior Co.*, 517 F.2d 714, 721 (5th Cir. 1975), *cert. denied*, 424 U.S. 943 (1976); *Panotex Pipe Line Co.* v. *Phillips Petroleum Corp.*, 457 F.2d 1279, 1289 (5th Cir.), *cert. denied*, 409 U.S. 845 (1972); *Fleetwry, Inc.* v. *Public Service Interstate Transp. Co.*, 72 F.2d 761, 763 (3d Cir. 1934), *cert. denied*, 293 U.S. 626 (1935); *Weber* v. *Wynne*, 431 F. Supp. 1048, 1059-60 (D.N.J. 1977); *Purex Corp.* v. *Procter & Gamble Co.*, 419 F. Supp. 931, 940 (C.D. Cal. 1976).

ing in monopolizing that market.* Those decisions have followed this Court's repeated statement that attempt to monopolize means the use of methods which, although falling short of actual monopolization, "approach so close as to create a dangerous probability of it." *American Tobacco Co.* v. *United States*, 328 U.S. 781, 785 (1946); *see also Walker Process Equipment, Inc.* v. *Food Machinery & Chemical Corporation*, 382 U.S. 172, 177 (1965); *Swift & Co.* v. *United States*, 196 U.S. 375, 396 (1905).

The dangers of eliminating from the law of attempted monopolization the fundamental requirements of defining a relevant market and that there be a dangerous probability of success are obvious:

> " 'It seems to this court clear, both on authority and logic, that when a charge is made of attempt to monopolize, the first question would be—"to monopolize what?" The answer would seem to be "the relevant market, toward the monopolization of which the attempt was directed." Were this not so, there would be the anomaly that a defendant could be punished for attempting to do what, if accomplished, would be legal. That is, if a defendant in fact acquired a position in a relevant market that did not amount to monopoly, how could

*E.g., *George R. Whitten, Jr., Inc.* v. *Paddock Pool Builders, Inc.*, 508 F.2d 547, 550 (1st Cir. 1974), *cert. denied*, 421 U.S. 1004 (1975); *FLM Collision Parts, Inc.* v. *Ford Motor Co.*, 543 F.2d 1019, 1030 (2d Cir. 1976), *cert. denied*, 429 U.S. 1097 (1977); *Rea* v. *Ford Motor Co.*, 497 F.2d 577, 590 n.28 (3d Cir.), *cert. denied*, 419 U.S. 868 (1974); *McElhenney Co.* v. *Western Auto Supply Co.*, 269 F.2d 332, 339 (4th Cir. 1959); *Sulmeyer* v. *Coca Cola Co.*, 515 F.2d 835, 851 (5th Cir. 1975), *cert. denied*, 424 U.S. 934 (1976); *Alles Corp.* v. *Senco Prods. Inc.*, 329 F.2d 567, 571-72 (6th Cir. 1964); *Mullis* v. *Arco Petroleum Corp.*, 502 F.2d 290, 295 (7th Cir. 1974); *United States* v. *Empire Gas Corp.*, 537 F.2d 296, 298-99 (8th Cir. 1976), *cert. denied*, 430 U.S. 915 (1977); *Agrashell, Inc.* v. *Hammons Prods. Co.*, 479 F.2d 269, 285-87 (8th Cir.), *cert. denied*, 414 U.S. 1022 (1973); *E. J. Delaney Corp.* v. *Bonne Bell, Inc.*, 525 F.2d 296, 307 (10th Cir. 1975), *cert. denied*, 425 U.S. 907 (1976); *Packard Motor Car Co.* v. *Webster Motor Car Co.*, 243 F.2d 418, 420 (D.C. Cir.), *cert. denied*, 355 U.S. 882 (1957).

it be wrongful for a defendant to attempt, successfully to acquire that position—i.e., to try to do that which if accomplished would be valid?' " *Acme Precision Products Inc.* v. *American Alloys Corp.*, 484 F.2d 1237, 1240 (8th Cir. 1973) (quoting from *Diamond International Corp.* v. *Walterhoefer*, 289 F. Supp. 550, 576-77 (D. Md. 1968))

In relying solely on "specific intent to monopolize" and the existence of "anticompetitive conduct", and interpreting those elements as it has here, the court below has fashioned a rule in Section 2 attempt cases which proscribes precisely the sort of activity which the antitrust laws were intended to encourage. Any business enterprise, whatever its size, seeks to obtain all the business it profitably can handle. Certainly it has the "specific intent" to achieve that goal. Its success indisputably will have an impact upon its competitors. Those are natural, intended consequences of all price or product actions. Heretofore, such actions were not unlawful or predatory simply by reason of such "specific intent" to be successful. Under the decision below, all such actions may form the basis of a jury verdict without further proof.

Indeed, any company, large or small, which undertakes a vigorous advertising campaign, institutes a sales incentive plan or otherwise encourages its sales force to prevail over its competitors, all with the "specific intent" of capturing more business, runs the risk of violating Section 2 of the Sherman Act under the novel interpretation of the court below. That is clearly not, and never has been, the objective of antitrust enforcement even in a "winner take all" situation—wholly unlike the EDP industry—where only one competitor can survive. As Judge Wyzanski has stated:

> "While the phrase 'intent to exclude,' or its equivalent 'exclusionary intent,' is reiterated in antitrust cases, it is not easy to define its precise meaning. Contrary to what a layman might suppose, a person does not necessarily have an exclusionary intent merely because he foresees that a market is only large enough to permit one successful enterprise, and intends that his enterprise shall be that one and that all other enterprises shall fail. If the evidence shows that in laying his plans and executing them he contemplates and utilizes only superior skill, foresight, and industry, he has not an intent which is contrary to law. To prove that a person has that type of exclusionary intent which is condemned in anti-trust cases there must be evidence that the person who foresees a fight to the death intends to use or actually does use unfair weapons." *Union Leader Corp.* v. *Newspapers of New England, Inc.*, 180 F. Supp. 125, 140 (D. Mass.), *aff'd in pertinent part*, 284 F.2d 582 (1st Cir. 1960), *cert. denied*, 365 U.S. 833 (1961)

The Ninth Circuit's anomalous attempt rule, when added to its complete misconception of the monopolization offense, serves to illuminate its view that vigorous competition is itself anticompetitive. The inevitable result is to convert the battle of the marketplace, where the public is the victor, to the battle of the courts, where those losing out to fair (and previously encouraged) competition stand to be winners at the public's expense. In a world in which almost anyone can monopolize something or attempt to monopolize almost anything, and almost any act of vigorous competition can constitute "unnecessarily" exclusionary conduct in furtherance of this sort of a monopolization "attempt", the only dam placed on the flood of such litigation is the deterrent effect those rules have on vigorous competition itself. If these are the standards under which we are to live in the future, then the premises of the past—

> ". . . that the unrestrained interaction of competitive forces will yield the best allocation of our economic resources, the lowest prices, the highest quality and the greatest material progress, while at the same

time providing an environment conducive to the preservation of our democratic political and social institutions" (*Northern Pacific Railway* v. *United States*, 356 U.S. 1, 4 (1958))

—have truly been forsaken.

This, we submit, cannot be allowed.

CONCLUSION

For all the foregoing reasons, this petition should be granted. In addition, if *certiorari* is granted, we will respectfully request that the Court establish an accelerated briefing and argument schedule so that this case, of such importance generally and of particular significance to many cases now pending in the lower federal courts, may be decided during this Term.

Respectfully submitted,

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November 14, 1977.

APPENDIX "A"

APPENDIX A

GREYHOUND COMPUTER CORP., INC.

v.

INTERNATIONAL BUSINESS MACHINES CORP.

U. S. District Court, District of Arizona

No. Civ-72-242-Phx.

Dated July 10, 1972.

Afternoon Session

(In The Absence of the Jury)

The Court: I might say, gentlemen, that the burden placed on the Court by your respective motions is indeed an unhappy one.

With respect to the plaintiff's motion for directed verdict on the issue of liability, the motion is denied.

With respect to the plaintiff's motion for directed verdict on the issue of monopolization, the motion is denied.

With respect to the defendant's motion for directed verdict on the contract issue, the motion is granted.

The Court is of the opinion that, number one, the proof is not sufficient to submit that question to the jury, even with appropriate instructions as to the law.

The Court is of the opinion that that issue is resolved by the parol evidence rule, the statute of frauds, and last, but not least, the local rules of this court.

Even considering the Uniform Commercial Code of New York, my understanding is that the parties agree that is the law applicable to this case. As I say, having considered that, the Court is of the opinion that that issue is foreclosed under the parol evidence rule.

Moreover, the only two contracts in evidence have integration clauses which limit the subject matter of the contract.

The final motion of the defendant as to a directed verdict with respect to Section 2 of the Sherman Act posed more difficult problems to the Court.

The Court is of the opinion that the evidence with respect to the market and the defendant's relative share of the market is insufficient to submit that issue to the jury. Assuming for the purposes of argument that that issue might be submitted to the jury on the present status of the record, the Court is of the opinion that the evidence is insufficient to submit the question as to defendant's control or ability to control the market regardless of its purported relevant share thereof.

The Court is the further opinion that with respect to the issue of monopoly by the defendant, that the record is insufficient to submit that issue. Assuming that the defendant does hold a substantial share of a market, whatever that market may be, it is the opinion of this Court from the evidence adduced thus far in the record that the defendant's place in the industry has been achieved as a result of superior skill, foresight and industry.

The Court is of the opinion, from the evidence adduced at trial, that such activity as was engaged in by the defendant with respect to its pricing, both in leases and purchases, was brought about by economic factors over which defendant had no control.

The same reasoning applies to the issue with respect to attempt to monopolize. This Court is of the opinion that there is no evidence of an attempt to monopolize in the record.

And finally, the Court is of the opinion that with respect to the issue on damages, were the jury to consider

this record in its present state it would be purely speculative as to how the jury would reach a conclusion in that respect.

From this Court's days in law school, which is a very long time ago, apparently it is still the law that size alone does not constitute an offense under the Sherman Act, nor does the mere possession of monopoly power.

It is the wrongful use and exercise of that power which is proscribed by Section 2 of the act.

This Court is of the opinion that the opinions in *Alcoa, United Shoe, American Tobacco* and *Grinnell* do not apply to the circumstances in this case, and rather *du Pont* is closer to an analogy.

The Court is also cognizant of the language in *Bushie* by the Ninth Circuit.

I might say, gentlemen, that it would have been much easier to avoid this issue, but I don't believe that that is the function of the Court, and therefore with respect to defendant's motion for directed verdict with respect to Section 2 of the Sherman Act, the motion is granted.

APPENDIX "B"

APPENDIX B

GREYHOUND COMPUTER CORPORATION, INC.,

Plaintiff-Appellant,

v.

INTERNATIONAL BUSINESS MACHINES CORPORATION,

Defendant-Appellee.

No. 72—2553.

UNITED STATES COURT OF APPEALS,

NINTH CIRCUIT.

August 17, 1977.

APPEAL FROM THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF ARIZONA.

Before BROWNING, MOORE,* and WALLACE, Circuit Judges.

BROWNING, Circuit Judge:

Greyhound Computer Corporation brought this action against International Business Machines Corporation alleging IBM had monopolized or attempted to monopolize various markets in the electronic data processing industry in violation of section 2 of the Sherman Act, 15 U.S.C. § 2. Greyhound also charged IBM with breaching contracts to provide certain services in conjunction with the sale of computer equipment. After presentation of Greyhound's case the district court granted IBM's motion for a directed verdict. This appeal followed.

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*Honorable Leonard P. Moore, Senior Judge, United States Court of Appeals for the Second Circuit, sitting by designation.

We affirm the directed verdict on the contract issue, but reverse and remand for trial of the monopolization and attempt to monopolize claims.

I. Factual Background and Standard of Review

The computer industry, which is little more than 25 years old, has witnessed the introduction of three (and possibly four) "generations" of equipment, each generation representing a major technological advance. The first computers, introduced in 1952, were built with vacuum tubes. The second generation, introduced in 1958, utilized transistor technology. In 1964 IBM introduced the third generation with the System 360 family of computers, employing integrated circuits and other advances. In 1970 IBM announced an improved third (or possibly fourth) generation, the System 370 line. Because the electronic components of second and third generation equipment are virtually indestructible, the life of this equipment is a function of price and technological obsolescence rather than wear from usage.

A computer system consists of a central processing unit (or "mainframe") and peripheral equipment. Peripheral equipment includes means for storing information such as disk and tape drives, and input and output devices such as printers and terminals. Programmed instructions, or software, must be designed to enable the equipment to perform particular functions. Computer systems vary greatly in size and capacity to perform specified tasks.

IBM manufactures entire computer systems, including mainframes and peripherals. It also provides software and support services to its customers. Like other manufacturers, IBM both leases and sells its computers.

Greyhound is a leasing company; it does not manufacture computers. It buys computers from others and leases

them in competition with computer manufacturers and other leasing companies.[1]

Greyhound is both a customer and competitor of IBM. Greyhound's antitrust claim is that IBM restricted sales of its computer equipment in order to monopolize the leasing market in which Greyhound competes. Greyhound's contract claim is that IBM breached an obligation to provide services to Greyhound's lessees.

The district court granted the motion for a directed verdict on the antitrust claim because (1) the evidence was insufficient to establish a relevant market and IBM's share of the market; (2) the evidence was insufficient to establish IBM's control of a market; (3) the share of any market IBM holds "has been achieved as a result of superior skill, foresight, and industry"; (4) IBM's activity of which Greyhound complains was a competitive response to economic factors over which IBM had no control; and (5) Greyhound's damages were "purely speculative." The court directed the verdict on the contract claim because the evidence was insufficient and because the claim was barred by the parol evidence rule, the statute of frauds, and local rules of court.

The standard on review of a directed verdict favors Greyhound. We are "bound to view the evidence in the light most favorable to [Greyhound] and to give it the benefit of all inferences which the evidence fairly supports, even though contrary inferences might reasonably be

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[1]Leasing companies operate on the premise that the useful life of a computer system will exceed the manufacturer's expectations as reflected in the manufacturer's rental rates. Because leasing companies calculate that the equipment will have a longer economic life, they charge less, assume the risk of technological obsolescence, and rely on their ability to lease the equipment long enough to make a profit. *See* ABA Standing Committee on Law and Technology, Computers and the Law 125-26 (2d ed. 1969).

drawn." *Continental Ore Co.* v. *Union Carbide,* 370 U.S. 690, 696, 82 S.Ct. 1404, 1409, 8 L.Ed.2d 777 (1962).[2]

II. Monopolization

"The offense of monopoly under § 2 of the Sherman Act has two elements: (1) the possession of monopoly power in the relevant market and (2) the willful acquisition or maintenance of that power as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident." *United States* v. *Grinnell Corp.,* 384 U.S. 563, 570-71, 86 S.Ct. 1698, 1704, 16 L.Ed.2d 778 (1966).[3]

A. The Relevant Market

Greyhound's major contention is that IBM has monopolized or attempted to monopolize a submarket for leasing general purpose digital computers for commercial application. Greyhound also contends that IBM has monopolized or attempted to monopolize a separate submarket for IBM's own product line.

The question is whether Greyhound offered evidence from which the jury could have reasonably concluded that

[2]*Hanson* v. *Shell Oil Co.,* 541 F.2d 1352, 1356 (9th Cir. 1976); *Calnetics Corp.* v. *Volkswagen of America, Inc.,* 532 F.2d 674, 684 (9th Cir. 1976); *Chisholm Bros. Farm Equip. Co.* v. *International Harvester Co.,* 498 F.2d 1137, 1140 (9th Cir. 1974); *Hallmark Industry* v. *Reynolds Metals Co.,* 489 F.2d 8, 13 (9th Cir. 1973); *Cornwell Quality Tools Co.* v. *C. T. S. Co.,* 446 F.2d 825, 830 (9th Cir. 1971); *Juhnke* v. *EIG Corp.,* 444 F.2d 1323, 1325 (9th Cir. 1971); *Case-Swayne Co.* v. *Sunkist Growers, Inc.,* 369 F.2d 449, 452 (9th Cir. 1966), *rev'd on other grounds,* 389 U.S. 384, 88 S.Ct. 528, 19 L.Ed.2d 621 (1967).

[3]*See also Twin City Sportservice, Inc.* v. *Charles O. Finley & Co.,* 512 F.2d 1264, 1270 (9th Cir. 1975); *Treasure Valley Potato Bargaining Ass'n* v. *Ore-Ida Foods, Inc.,* 497 F.2d 203, 209 (9th Cir. 1974); *Case-Swayne Co.* v. *Sunkist Growers, Inc.,* 369 F.2d 449, 458 (9th Cir. 1966), *rev'd on other grounds,* 389 U.S. 384, 88 S.Ct. 528, 19 L.Ed.2d 621 (1967).

the submarkets which Greyhound defined were sufficiently distinct in commercial reality to permit a company that dominated these submarkets to exclude competition and control prices. This depends upon whether efforts to exclude competition or control prices in the submarkets in question would be negated by a shift of buyers to other portions of the market.[4]

IBM does not challenge the adequacy of Greyhound's evidence to establish a market limited to general purpose digital computers for commercial applications. It does argue, however, that the evidence will not support a finding that leasing constitutes a separate submarket. IBM also contends that the record does not establish a submarket defined exculsively in terms of IBM's product line.

From the record the jury could have concluded that the market for general purpose computers for commercial applications was distinguishable economically from the market for "dedicated application" computers or other general purpose systems, including minicomputers, process

[4]*See, e.g., United States* v. *Grinnell Corp.,* 384 U.S. 563, 571, 572-74, 86 S.Ct. 1698, 16 L.Ed.2d 778 (1966); *Brown Shoe Co.* v. *United States,* 370 U.S. 294, 325, 82 S.Ct. 1502, 8 L.Ed.2d 510 (1962); *United States* v. *E. I. duPont de Nemours & Co.,* 351 U.S. 377, 380, 393-95, 400, 404, 76 S.Ct. 994, 100 L.Ed. 1264 (1956); *Times-Picayune Publishing Co.* v. *United States,* 345 U.S. 594, 612 n.31, 73 S.Ct. 872, 97 L.Ed. 1277 (1953); *International Tel. & Tel. Corp.* v. *General Tel. & Elec. Corp.,* 518 F.2d 913, 932-33 (9th Cir. 1975); *Twin City Sportservice, Inc.* v. *Charles O. Finley & Co.,* 512 F.2d 1264, 1271 (9th Cir. 1975). Attempts to exclude competition or control prices may also be checked if other suppliers shift their production facilities to the product in question. *Brown Shoe Co.* v. *United States, supra,* 370 U.S. at 325 n.42, 82 S.Ct. 1502; *United States* v. *Empire Gas Corp.,* 537 F.2d 296, 303 (8th Cir. 1976); *Twin City Sportservice, Inc.* v. *Charles O. Finley & Co., supra,* 512 F.2d at 1271. However, neither IBM nor the record suggests that industries not presently engaged in the leasing of general purpose commercial systems could have shifted their operations to such a business readily.

control computers, and large scientific computers.[5] Greyhound offered evidence that other computers are not reasonably interchangeable with general purpose commercial systems, and that no significant substitution in fact takes place.[6] Other evidence indicated that computer systems manufacturers tend to specialize in but one of these types of computers, that the industry and its customers recognized these categories of computers, and that the various categories have distinct prices and distinct sets of competitors employing different marketing techniques. *See Brown Shoe Co.* v. *United States*, 370 U.S. 294, 325, 82 S.Ct. 1502, 8 L.Ed.2d 510 (1962).[7] This evidence was sufficient to support a jury conclusion that the market for general purpose computer systems for commercial applications constitutes a relevant market for antitrust purposes.

[5]One witness testified that general purpose digital systems are "designed to be internally programmed and store data internally and could be applied to a broad variety of applications, in principally commercial, also scientific and engineering environments." The general purpose systems suitable for commercial application are those that "can be, without undue burden and effort . . . programmed and applied efficiently to the type of applications that one incurs in a business or commercial environment."

Minicomputers are used primarily in instrumentation and industrial automation, and are suited for customers whose computer requirements are relatively simple and stable in character. Process control computers are used for control and measurement of industrial process. Large scientific computers (dubbed "number crunchers") focus on "certain portions of the scientific and government community who are interested in intensively high calculations."

[6]There is evidence in the form of an editorial in a trade journal that design changes in the new minicomputers make them "a reasonable alternative" to full-sized general purpose machines. In view of the unreliability of such evidence and the substantial nature of the evidence of differentiation presented by Greyhound, the jury was free to conclude that minicomputers were not readily substitutable for general purpose systems.

[7]*Brown Shoe* involved a claim under § 7 of the Clayton Act, but is equally applicable to cases arising under § 2 of the Sherman Act. *United States* v. *Grinnell Corp.*, 384 U.S. 563, 572, 86 S.Ct. 1698, 16 L.Ed.2d 778 (1966). *See, e. g., Knutson* v. *The Daily Review, Inc.*, 548 F.2d 795, 804 (9th Cir. 1976).

As the Supreme Court said in *Grinnell*, "We see no reason to differentiate between 'line' of commerce in the context of the Clayton Act and 'part' of commerce for purposes of the Sherman Act." 384 U.S. at 573, 86 S.Ct. at 1705.

It is a closer question whether the evidence would permit a jury finding that leasing general purpose computers for commercial applications constituted a submarket economically distinct from others in which such computers are made available to users. We conclude, however, that such a finding would have been justified.

No rule of law or economic principle bars application of section 2 of the Sherman Act to one of several alternative means of distributing a product. The statute prohibits monopolization of "any part" of interstate or foreign commerce. Accordingly, the Sherman Act and other antitrust statutes have been applied to protect competition in one of alternate channels of distribution.[8]

The record indicates that data processing services are distributed to users by: (1) sale of computer systems, (2) lease of computer systems, (3) time-sharing,[9] or (4) contracting with service bureaus.[10] The latter two are the most clearly discrete. There was ample evidence that service

[8]*Cornwell Quality Tools Co.* v. *C.T.S. Co.*, 446 F.2d 825, 830 (9th Cir. 1971) (Sherman Act); *Columbia Broadcasting System, Inc.* v. *FTC*, 414 F.2d 974, 978-79 (7th Cir. 1969) (Federal Trade Commission Act); *Evening News Publishing Co.* v. *Allied Newspaper Carriers of New Jersey*, 160 F.Supp. 568, 576-77 (D.N.J. 1958), *aff'd*, 263 F.2d 715 (3d Cir. 1959) (Sherman Act). *See generally C. A. R. Leasing, Inc.* v. *First Lease, Inc.*, 394 F.Supp. 306 (N.D.Ill. 1975) (Sherman Act).

[9]One witness testified, "Time sharing is a system of using a computer whereby a user has a terminal of some capability, some small, some large, and the terminal is hooked to the computer via telephone line at some remote distance, and this allows the user to access the computer through the telephone lines and through his terminal."

[10]According to one witness, "A service bureau is a form of business which utilizes data processing equipment to provide a service, and for which the owner of the service bureau charges some fee for the services rendered on his computers."

bureaus and time-sharing arrangements do not provide an acceptable alternative to those who might buy or lease computer systems. Greyhound offered testimony that time-sharing and service bureaus are addressed to needs different from those served by an installed computer,[11] that purchasers and lessees of computers do not consider service bureau and time-sharing arrangements an acceptable substitute, and that leasing companies do not consider suppliers of these services to be their competitors.

The evidence is not so clear that leasing general purpose computers constitutes a market distinct from selling. Considering the weighty presumption in favor of a jury determination, however, we conclude the evidence was sufficient.

Leases and sales serve different customer needs. Greyhound offered testimony that general purpose commercial computers are purchased by banks, insurance companies, and other businesses with predictable long-term data processing needs and the capacity to undertake long-term financial commitments. Computers are leased by customers that have variable business requirements and a need to keep abreast of advancing technology. A single company with a variety of problems may purchase a computer to perform one task and lease a computer to perform another.[12] Because lessees

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[11]Time-sharing and service bureau arrangements are suitable only for processing requirements entailing a small input.

[12]The following testimony is illustrative. An industry analyst testified, "If the man at General Motors is putting in a control system in an assembly area, he will buy that. If he's putting in a computer to run the payroll, to keep sales analysis he will probably lease that." Asked whether this difference was related to flexibility, he responded, "Yes, because his production control system will be dedicated to assembling automobiles, which is a relatively fixed task." The data processing manager of one company testified that his organization had both purchased and leased computers, and that it had elected to lease an IBM 360/30 at the same time that it purchased a large machine because it desired the flexibility of the lease and did not wish to assume the risk of owning a machine it might outgrow.

retain the option to cancel (albeit at some penalty), even the long-term lessee has a degree of flexibility unavailable to the purchaser. IBM's senior vice president testified that, at least with some models, the decision to purchase or lease may not be affected by price changes. On this record a jury could infer that the need for flexibility governed the choice between a lease and purchase, and that there was substantial customer resistance to shifting from one to the other.[13]

The computer industry, as well as its customers, recognized the distinction between the business of selling and the business of leasing. Leasing companies, of course, engaged only in the latter. Moreover, leasing requires a commitment of capital for a substantially greater period of time than selling.

IBM argues that both leasing and buying are merely methods of financing the use of computer systems. However, the Sherman Act cannot be avoided by classifying the commercial activity involved as financing. A difference in services offered by financial institutions may provide the basis for recognition of distinct submarkets for antitrust purposes.[14]

We conclude that the evidence was sufficient, though by no great margin, to permit the jury to find that the differences between leasing and selling general purpose com-

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[13]The fact that some leases contained a purchase option permitting the lessee to obtain title to the equipment at some point after expiration of the contract term does not undermine the distinction between leasing and purchasing. The customer's need for flexibility still dictates the initial decision to lease, and the purchase option may prove to be a desirable alternative should the user's data processing needs stabilize at some point in the future.

[14]IBM argues that in any event Greyhound's proof relates to the wrong market. It claims that Greyhound's charge is that IBM manipulated the price at which computers are sold, not leased, and if the two submarkets differ, the relevant market is not the lease market but the purchase market. We deal with this contention below, when we consider IBM's general defenses. *See* 559 F.2d p. 502, *infra*.

puters were of sufficient significance to justify treatment of the two forms of distribution as distinct submarkets for competitive purposes.

In light of this conclusion we need not decide whether IBM's product line constitutes a separate submarket for antitrust purposes.[15] Greyhound offered evidence that although other manufacturers compete with IBM for initial installation, the cost of changing to another manufacturer's system once a system is installed may be prohibitive.[16] Greyhound asserts that by offering a complete product line of general purpose commercial systems, IBM is able to "lock in" users who select IBM equipment initially, and limit competition to leasing companies carrying IBM systems. We intimate no view on whether such evidence establishes an economically distinct submarket. *Compare Bushie* v. *Stenocord Corp.*, 460 F.2d 116, 120-21 (9th Cir. 1972); *Industrial Building Materials, Inc.* v. *Interchemical Corp.*, 437 F.2d 1336, 1344 (9th Cir. 1970).

B. Possession of Monopoly Power

There was evidence from which the jury could reasonably infer that IBM possessed monopoly power in the leasing of general purpose commercial computers.

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[15]We also do not reach Greyhound's contention that "risk leasing" constitutes a submarket distinct from "full-payout" leasing.

"Full-payout" leasing is self-defining. "Risk leasing" was described as "the business of purchasing equipment, in this case, computer equipment, putting it out on rent to a user under a contract, which does not pay for the total cost of the equipment, thus requiring us to move the equipment from one user to another user, and so forth, hopefully to a sufficient number of users at sufficiently high rent to pay for the equipment and result in a profit."

[16]One customer testified: "[T]o replace the IBM equipment with some other manufacturer's equipment now would mean literally scrapping of maybe a million dollars worth of programming and systems engineering." A leasing company executive testified that when one of his IBM computers came off lease, he did not compete with non-IBM manufacturers in releasing the equipment: "Well, we only compete with the same kind of equipment, whether it be owned by IBM, or another company. We do not compete between types of equipment. The economics are just not practical."

"Monopoly power is the power to control prices or exclude competition." *United States* v. *E. I. duPont de Nemours & Co.*, 351 U.S. 377, 391, 76 S.Ct. 994, 1005, 100 L.Ed. 1264 (1956). *Accord, United States* v. *Grinnell Corp., supra,* 384 U.S. at 571, 86 S.Ct. 1698. "[S]ize is of course an earmark of monopoly power," *United States* v. *Griffith,* 334 U.S. 100, 107 n. 10, 68 S.Ct. 941, 946, 92 L.Ed. 1236 (1948), and "[t]he existence of such power ordinarily may be inferred from the predominant share of the market." *United States* v. *Grinnell Corp., supra,* 384 U.S. at 571, 86 S.Ct. at 1704. The evidence in this record permitted a calculation[17] of IBM's share of revenues from leasing of general purpose computers at 82.5

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[17]This calculation is based on the following steps. Greyhound's Exhibit 633 shows the total leasing revenue earned by the eight major manufacturers in the general purpose commercial market for the years 1964, 1967, and 1970, and IBM s percentage of these totals. Greyhound's Exhibit 630 shows the leasing revenue earned by leasing companies during the same years. Addition of the figures in the two exhibits gives an approximation of the total lease revenue earned from general purpose commercial systems. IBM's portion of this total is 82.5% in 1964, 75.1% in 1967, and 64.7% in 1970.

Lease revenue earned by peripheral manufacturers and systems manufacturers other than the eight major manufacturers is not included in the total from which IBM's share was figured. However, Greyhound's Exhibit 625 indicates that peripheral companies account for a maximum of 1.3% of the total lease revenues for all computer systems and that in recent years systems manufacturers other than the major eight account for only about .5% of this total. Consequently, the jury could ignore as insubstantial whatever share of the general purpose commercial market these companies held.

IBM quibbles with the figures in Greyhound's exhibits, but the jury could conclude they were essentially accurate.

It is unclear from the record whether banks and finance companies also derive revenue from the leasing of general purpose commercial systems that should be included in the total against which IBM's share is measured. Because Greyhound is entitled to have every reasonable inference drawn in its favor, we have excluded banks and finance companies from the group of competitors in the relevant market. IBM makes a passing reference to competition from foreign manufacturers, but the evidence showed only that Japanese manufacturers hoped to enter the market at some time in the future.

percent in 1964, 75.1 percent in 1967, and 64.68 percent in 1970.[18] The portion of the market not controlled by IBM was dispersed among many other companies, none accounting for more than 4 percent of total lease revenues. Eight firms manufactured over 95 percent of the general purpose computers,[19] and IBM's share of the general purpose commercial lease revenues of this group of the strongest competitors in the relevant market was 83.7 percent in 1964, 78.9 percent in 1967, and 77.7 percent in 1970. The revenue of each of the other seven was relatively insubstantial.

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[18]In *United States* v. *Grinnell Corp.*, 384 U.S. 563, 571, 86 S.Ct. 1698, 1704, 16 L.Ed.2d 778 (1966), the Supreme Court held that an 87% market share "leaves no doubt that . . . these defendants have monopoly power." In *American Tobacco Co.* v. *United States*, 328 U.S. 781, 797, 66 S.Ct. 1125, 1133, 90 L.Ed. 1575 (1946), the Court stated that "over two-thirds of the entire domestic field of cigarettes, and . . . over 80% of the field of comparable cigarettes" constituted "a substantial monopoly." This court has found monopoly power where the defendant's market position was less dominant. *Pacific Coast Agricultural Export Ass'n* v. *Sunkist Growers, Inc.*, 526 F.2d 1196, 1204 (9th Cir. 1975) (45-70%); *Case-Swayne Co.* v. *Sunkist Growers, Inc.*, 369 F.2d 449, 452, 458 (9th Cir. 1966), *rev'd on other grounds*, 389 U.S. 384, 88 S.Ct. 528, 19 L.Ed.2d 621 (1967) (67 or 70%). But cf. *United States* v. *International Harvester Co.*, 274 U.S. 693, 709, 47 S.Ct. 748, 71 L.Ed. 1302 (1927) (64.1% not sufficient in increasingly competitive market); *United States* v. *Aluminum Co. of America*, 148 F.2d 416, 424 (2d Cir. 1945) ("it is doubtful whether sixty or sixty-four percent would be enough"). We have expressed doubt that a 50% share of the market is sufficient to establish monopoly power per se. *See Twin City Sportservice, Inc.* v. *Charles O. Finley & Co.*, 512 F.2d 1264, 1274 (9th Cir. 1975).

The record indicates that IBM's market share is declining. A declining market share may reflect an absence of market power, *see United States* v. *International Harvester Co., supra*, 274 U.S. at 709, 47 S.Ct. 748; *United States* v. *United States Steel Corp.*, 251 U.S. 417, 439 n.1, 40 S.Ct. 293, 64 L.Ed. 343 (1920), but it does not foreclose a finding of such power. *See American Tobacco Co.* v. *United States, supra*, 328 U.S. at 794-95, 66 S.Ct. 1125.

[19]These eight manufacturers were IBM, Burroughs, Control Data, General Electric, Honeywell, NCR, RCA, and Sperry Rand (Univac). RCA's computer business was later acquired by Sperry Rand; Honeywell acquired the General Electric computer business.

Evidence other than IBM's predominant share of the market supported an inference of market dominance. About 80 percent in dollar value of the installed base of general purpose systems is IBM equipment. IBM derived substantial market leverage from the fact that the vast majority of installed computer systems are IBM built. There was evidence that because of the high changeover costs faced by customers who wish to change equipment manufacturers, the rental demand for IBM systems among current IBM users was inflexible. IBM's senior vice president testified that rental prices of some models could be increased without proportionate decreases in demand. Other evidence indicating IBM's ability to manage its prices with little regard to competition included testimony that IBM based its prices on a 30 percent profit objective, that it never set a price simply to meet competition, and that its prices were 5 to 15 percent above those of the best of its competition.

IBM responds that other evidence in the record indicates IBM did not possess monopoly power. None of this evidence compelled a ruling in IBM's favor as a matter of law. IBM argues, for example, that the "youth, change and growth" of the computer industry are inconsistent with a finding of monopoly power. These characteristics, however, do not immunize an industry from monopolization, and, in any event, nothing in the record suggests that IBM's own power was transient. IBM also argues that entry into the industry is easy, and that IBM's competitiors are strong and independent. But the record suggests new entrants avoided direct confrontation with IBM and occupied interstices in the market. Two substantial competitiors who met IBM directly in the marketplace (RCA and General Electric) bowed out after sustaining heavy losses. The record also suggests that IBM's dominant installed base and high changeover costs have created a barrier to entry at the manufacturing level so substantial that only leasing companies

will be able to initiate competition with IBM for this large group of users.[20]

IBM also contends that price reduction and product improvement are characteristics of the industry and are inconsistent with the existence of monopoly power. But rapid technological progress may provide a climate favorable to increased concentration of market power rather than the opposite.[21] Moreover, a decline in prices does not necessarily imply an absence of monopoly power; a fair profit might have been made at even lower cost to users. *See United States* v. *Aluminum Company of America,* 148 F.2d 416, 427 (2d Cir. 1945). Finally, IBM asserts that because of competition from other companies its revenue fell $220 million from 1968 to 1969 and $150 million from 1969 to 1970. But IBM offered quite a different explanation to its shareholders, informing them that the decline was the result of cyclical purchases and an adverse economy.

C. Willful Acquisition or Maintenance of Monopoly Power

The gravaman of Greyhound's complaint is that IBM undertook to advance IBM's own leasing operations at the expense of leasing companies by making the purchase of computer equipment for lease economically unattractive.[22]

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[20]This evidence suggests one answer to IBM's argument that monopolization is precluded by the fact that most users of computers are themselves strong, sophisticated business organizations "able to evaluate and switch to competitive products."

[21]*See* Halverson, *The Relationship of Antitrust Policy and Technological Progress,* 1975 Wash. U.L.Q. 409, 413-20; Note, *Innovation Competition: Beyond Telex* v. *IBM,* 28 Stan.L.Rev. 285, 289 n.14 (1976).

[22]Leasing was more advantageous to IBM than selling the same equipment. Leasing avoided the bunching of revenues and profits during heavy sales periods (usually the first years after introduction of a new product), and thereby helped maintain a constant revenue flow. It also generated particularly attractive profits after the equipment was fully depreciated. Moreover, it facilitated introduction of newly developed products, since lessees were not inhibited by a large investment in either the new or the old machine.

There was ample evidence that IBM officials became concerned that the balance between sales and rental had turned too heavily toward sales, and deliberately set about to reverse the trend. Greyhound asserts that in pursuit of this goal IBM adopted certain practices that reflect "the willful acquisition or maintenance of [monopoly] power as distinguished from growth or development as a consequence of a superior product, business acumen, or historic accident." *United States* v. *Grinnell Corp., supra,* 384 U.S. at 570-71, 86 S.Ct. at 1704.

These practices were (1) inaugurating the "fixed term plan," (2) eliminating the technological discount, (3) increasing the "multiplier" (a ratio describing the relationship of IBM purchase price to IBM rental price), and (4) "unbundling" (*i.e.,* pricing services separately from the equipment purchase price).

It is no answer to the charge to say that these practices are not "predatory"[23] but "honestly industrial"[24]—that is, of a kind an ordinary enterprise might utilize with impunity. If the jury concluded IBM possessed monopoly power in the leasing of general purpose computers, IBM would be precluded from employing otherwise lawful practices that unnecessarily excluded competition from the submarket.[25] The question is whether the jury could have found that the alleged practices were in fact adopted, and, if so, whether they had the prohibited effect. IBM's posi-

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[23]*Hanover Shoe, Inc.* v. *United Shoe Machinery Corp.,* 392 U.S. 481, 497-98, 88 S.Ct. 2224, 20 L.Ed.2d 1231 (1968).

[24]*American Tobacco Co.* v. *United States,* 328 U.S. 781, 814, 66 S.Ct. 1125, 90 L.Ed. 1575 (1946), *quoting United States* v. *Aluminum Co. of America,* 148 F.2d 416, 431 (2d Cir. 1945). *See Hanover Shoe, Inc.* v. *United Shoe Machinery Corp.,* 392 U.S. 481, 496, 88 S.Ct. 2224, 20 L.Ed.2d 1231 (1968).

[25]*United States* v. *United Shoe Machinery Corp.,* 110 F.Supp. 295, 344-45 (D.Mass.1953), *aff'd per curiam,* 347 U.S. 521, 74 S.Ct. 699, 98 L.Ed. 910 (1954). *See also Industrial Building Materials, Inc.* v. *Interchemical Corp.,* 437 F.2d 1336, 1344-45 (9th Cir. 1970).

tion is that Greyhound failed to show any manipulation of the multiplier or technological discount, and that "unbundling" and the fixed term plan were not exclusionary but pro-competitive.

1. *The Fixed Term Plan*

IBM had leased mainframe equipment for 90 days and peripheral equipment for 30 days. In May 1971 IBM announced the "fixed term plan," offering an 8 percent reduction on some peripheral equipment for a one-year lease, and a 16 percent reduction for a two-year lease. The plan also eliminated extra shift and maintenance charges. Substantial penalties were imposed for premature lease cancellation. The purchase price of the equipment was also reduced 15 percent, and purchasers were given a 12 percent technological discount per year for up to two years. At the same time IBM increased rental rates for mainframe equipment.

Greyhound contends that the fixed term plan locked customers into IBM's rental base and made price competition more difficult. But the record shows that leasing companies had traditionally priced peripheral equipment lower than IBM and offered lease terms of from one to seven years. Greyhound failed to show that IBM's action with respect to peripheral equipment was anything more than a reasonable response to this competition.

Greyhound can hardly complain of IBM's increase in its rental rates for mainframe equipment, since this change could only work to the advantage of leasing companies.

2. *Technological Discount*

Although electronic data processing equipment is virtually indestructible, it is nonetheless subject to obsolescence as new technology replaces the old. In recognition of this fact IBM grants a "technological discount" on the

purchase price of used equipment. Greyhound alleges that IBM manipulated the technological discount in such a way as to restrict competition from leasing companies.

Until late 1963 IBM's technological discount on second generation equipment was 10 percent per year, up to a maximum of 75 percent. Thus, equipment on the market for several years could be purchased at 25 percent of original cost. Leasing companies made extensive use of the second generation discount. IBM's Management Review Committee observed in 1965 that one reason for the rapid growth of leasing companies was their ability to purchase equipment at substantial discounts and return a profit in a short period of time.

In 1963 IBM reduced the annual discount from 10 to 5 percent per year and the cumulative maximum from 75 to 35 percent. In 1964, shortly after the announcement of System 360, the discount was changed to 12 percent after the first year with no further discounts in succeeding years. Thus, the lowest price at which a purchaser could obtain a third generation IBM computer was 88 percent of the original price.

These changes restricted the capacity of leasing companies to compete by inhibiting purchases late in the product cycle. Because reduction of the discount increased the price leasing companies had to pay for the equipment, growth of their inventory was curtailed. Confining the discount to the first year of use required the leasing companies to bunch their purchases in the early years of a product cycle, eliminating the previously profitable practice of acquiring equipment late in its useful life at a relative low and quickly recoverable cost.[26]

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[26]Most of Greyhound's 360 purchases occurred in the first and second years after large-scale delivery of the system began. Greyhound's purchases totaled $171 million—about $20 million in 1966, $55 million in 1967, $75 million in 1968, $15 million in 1969, and less than $5 million in 1970 and 1971 together. Greyhound's presi-

There was evidence from which the jury could infer that these anticompetitive consequences were intended. IBM's vice president for finance and planning acknowledged that the alter technological discount on the 360 would reduce purchases. The Management Review Committee's comment in 1965, after the change in the discount schedule, that leasing companies had prospered under the former policy supports an inference that the change was aimed at harming these competitors. IBM's director of finance noted in 1969 that although a declining purchase price "makes economic sense," that policy had been rejected in order to create a "potential negative impact on leasing companies through a devaluation of their inventory."

IBM contends that Greyhound carries IBM equipment on its books at a value higher than the equipment would be worth under the technological discount available prior to late 1963, implying that Greyhound's accounting proves IBM's original discount rate did not reflect economic realities. However, Greyhound depreciated IBM equipment at the rate of 10 percent per year from the date of purchase, and IBM itself depreciated the equipment over a six-year

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dent testified that the decline was due to IBM's failure to provide additional technological discounts later in the product cycle, and that Greyhound would have purchased 360 equipment in subsequent years had the discount been similar to that offered on second generation equipment. Another leasing company executive also attributed the decline in purchase of 360 equipment to IBM's change in the technological discount. This testimony is supported by Greyhound's experience with second generation equipment. Greyhound invested profitably in used second generation equipment late in the product cycle when a large discount was available, but lost money on late purchases of second generation equipment when no discount was available.

Randolph Computer, another leasing company, invested a total of $175 million in System 360, $159 million of the total prior to 1969. Like Greyhound, Randolph Computer reduced its 360 purchases after 1968 because the technological discount was not sufficiently large to justify later purchases.

period. Even if the jury were to find the original discount rate excessive, it could still conclude that the reduction to a total of 12 percent was not economically justifiable.[27]

3. *Multipliers and Maintenance Rates*

The "multiplier"—a ratio describing the relationship between IBM's sales price and IBM's monthly rental charge—reflects both the cost of the equipment to the leasing company and the rental charge with which the leasing company must be competitive. As the multiplier increases, the number of rental months necessary to recover the cost of the equipment also increases, and investment in the system becomes less profitable. Greyhound's president testified that the multiplier "dictates whether we can do business or whether we can't do business, whether our company is viable and whether it isn't viable." Even a modest change in the multiplier can have a significant effect upon the ability of leasing companies to compete.

Greyhound contends that beginning with new models of System 360 announced in 1968 (Model 25 and System 3), and continuing through System 370, IBM increased the multiplier substantially, and the effect of this increase was to limit competition from leasing companies.

IBM insists no such increase occurred, and that Greyhound's contrary assertion is "a flat misstatement of the record." The record is replete with calculations reaching

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[27] IBM points to the fact that IBM eliminated late cycle discounts before Greyhound Computer Corporation, Inc., was formed. This does not preclude Greyhound Computer's objection to the practice, however, since Greyhound Computer is the successor of Greyhound Leasing & Financial, which traces its entry into the computer leasing industry to 1962, at least a year before IBM first altered its discount policy.

It is also true that Greyhound admitted the initial 12% discount assisted early purchases, but this fact does not detract from Greyhound's complaint that IBM's refusal to account for additional obsolescence after the first year of use was destructive of competition.

apparently inconsistent results. The conflict appears to result primarily from the fact that the disputants are referring to different things.

The "gross" multiplier is IBM's sales price divided by IBM's monthly rental charge. However, because IBM's rental charge included the cost of maintenance and leasing companies do not provide maintenance leasing company rates must be competitive with IBM's rental charge minus IBM's monthly maintenance rate.[28] This ratio of IBM's sales price to IBM's rental charge minus the maintenance rate is called the "net" or "effective" multiplier. The multiplier of concern to leasing companies includes one additional adjustment. The IBM sales price must be reduced by the amount of the technological discount or investment tax credit.[29] IBM's failure to take this step into account in calculating the multiplier on System 360 computers explains much of the confusion at trial.

Greyhound's figures are derived by dividing IBM's sales price minus the applicable discount or credit by IBM's rental charge minus the maintenance rate. From the evidence presented at trial the jury could have found that IBM did increase this multiplier. Evidence indicated that when Greyhound purchased its System 360 equipment, the average multiplier, considering all discounts, was 42.5 to 1. But when IBM offered 370 equipment for sale, the multiplier had been increased to 48 to 1.[30]

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[28]IBM's rental charge included maintenance, but its sales price did not.

[29]There was evidence that Greyhound would not purchase equipment unless either the investment tax credit or the technological discount was available. Either credit had the effect of reducing the purchase price of IBM equipment by about 12%.

[30]An IBM "Leasing Company Variance Analysis" assumed 1966 multipliers to be 42 to 1, and those of 1970 to be 48 to 1. Another 1970 IBM report recognized an increase in the net multiplier, absent discounts, from about 45, to 56. Other IBM documents reflected the company's awareness that System 370 was ushering in "higher purchase multipliers and a general increase in maintenance prices." A report of a field survey by an independent expert also acknowledged the increase in multipliers on System 370.

IBM argues that if the investment tax credit or technological discount were applied to the 370 multipliers, the adjusted multiplier would be about 42 to 1. But the record shows that these discounts were included in Greyhound's calculation of the multiplier on System 370 at 48 to 1.

IBM argues that the multipliers on sales of 360 equipment shown in Exhibit H-2 are approximately the same as the multipliers on sales of 370 equipment shown in Exhibit G-2. However, all the purchases reflected in Exhibit H-2 occurred prior to IBM's "three by three" price adjustment on Oct. 1, 1966, which had the effect of reducing the effective multipliers. Since Greyhound purchased 88 to 92% of its 360 equipment after this adjustment, the multipliers reflected in Exhibit H-2 are not representative of those generally applicable to Greyhound.

There was testimony that the multiplier on 360 Model 25 was increased to about the level of the multiplier on 370 equipment, and that the multiplier on System 3 was raised to 46.7.

[31]The monthly maintenance charge on System 360 equipment was 8% of the monthly rental. The maintenance charge on System 370 equipment was up to 13% of the monthly rental. Multiplier increases on the 360 Model 25 and the System 3 were also attributable to higher maintenance charges.

Moreover, the increase was accomplished at least in part by means inconsistent with the competitive model. There was evidence that instead of lowering rental rates, an action consistent with competitive behavior, IBM increased its maintenance charges despite decreased maintenance costs. Each succeeding generation of IBM equipment was more reliable and hence less costly to maintain. Maintenance costs on 360 computers, for example, were less than those on second generation computers. Although 370 computers represented another marked advance in reliability, IBM raised its maintenance rates on this equipment.[31]

There was evidence from which the jury could conclude that the effect of the increase in the multiplier was to restrict leasing company access to 370 equipment severely. If leasing companies elected to purchase System 370 equipment, they would have to persuade their customers to enter

into seven-or eight-year leases, which most users would reject as unreasonably long. Several witnesses testified that the new multiplier effectively foreclosed leasing company purchases of IBM's 370 equipment and thus from participation in the business of leasing such equipment in competition with IBM.[32]

4. *"Unbundling" of Services*

Prior to June 1969 IBM provided certain services to IBM customers without additional charge, including education of customer personnel, software support, technical guidance in the use and application of the equipment, and advice on physical installation. The cost of these services was included or "bundled" in IBM's rental charge. IBM provided equivalent services to the first users of purchased computers, including leasing company lessees. A Greyhound witness testified that the cost of these services represented about 15 percent of the purchase price.

[32]IBM contends that leasing companies purchased System 370 tc the same extent they purchased System 360 over a comparable period of time. The record suggests otherwise. The jury could have concluded that demand for different computer generations should be compared as of the time volume deliveries of each system began, and since System 370 appeared on the market in quantity about a year earlier than System 360 in their respective product cycles, the proper comparison was between demand for the 360 system in 1967 and demand for the 370 system in 1972. Leasing company purchases of System 360 equipment totaled $550 million in 1967, but an industry analyst estimated that leasing companies would purchase only $50-$75 million of System 370 equipment in 1972.

IBM argues that the Greyhound interests are in fact buying and leasing System 370 equipment through Greyhound Leasing & Financial, another subsidiary of the parent Greyhound Corporation, and that such activity undermines Greyhound Computer's claim that purchase of 370 equipment for lease is not economical. But the record shows that Greyhound Leasing had invested only about $2 million in 370 equipment at the time of trial, a fraction of the investment Greyhound Computer had made in 360 equipment at a comparable point in the product cycle.

IBM also argues that Greyhound Computer has arranged to sublet equipment owned by Greyhound Leasing and that this arrangement will be pursued in the marketing of 370 equipment. However, IBM introduced evidence of only two such subleasing transactions, and neither involved 370 equipment. A Greyhound witness testified that the transactions were ad hoc arrangements that occurred infrequently.

IBM says that a former Greyhound president admitted leasing companies could profitably purchase and lease 370 equipment. But the testimony in question concerned Models 25 and 85 of System 360, not System 370, and was based on a set of assumptions termed unrealistic by the witness.

In June 1969 IBM announced it would no longer provide services to IBM rental customers or to first users of purchased equipment except upon payment of an additional charge. At the same time, IBM reduced its rental charges and purchase prices by 3 percent.

Since IBM did not compensate purchasers for the withdrawal of services, leasing companies that had IBM computers still placed with first users were deprived of services for which they had already paid. In effect, IBM raised the multiplier after the leasing companies had purchasd the equipment. Leasing companies were burdened with an inflated investment in equipment already bought and at the same time were compelled to meet reduced IBM rental rates in the leasing market.

In addition, IBM recognized that since the purchaser pays for services at once while the rental customer pays over a period of time, the purchase price should be cut by more than the rental price in order to show an even reflection of the cost of services. However, IBM did not make the purchase price reduction because, as one IBM document stated, it hoped to "protect the level of purchase multipliers to the maximum extent possible." The jury could thus have concluded that IBM's method of unbundling effectively raised multipliers on future purchases as well.[33]

[33]IBM asserts that Greyhound attempted to raise its rates after "unbundling" and argues that this conduct was inconsistent with Greyhound's present claim, but the evidence indicates that Greyhound was unable to obtain the increased rates.

IBM claims that its decision to charge separately for services was pro-competitive because "it opened the door wider to actual and potential suppliers of the same or similar services." It may have been pro-competitve to charge separately for services and equipment, but it was anticompetitive to do so in a way that left the leasing companies with an inflated investment and lowered returns.

5. *General Defenses*

IBM argues that its market power rests upon superior technology and business acuity. As the discussion has suggested, however, on the evidence thus far presented at trial the jury could have concluded that IBM maintained its monopoly power in the leasing of general purpose computers in part by practices that unnecessarily, even deliberately, excluded leasing companies from an opportunity to compete. Judge Wyzanski's characterization of the leasing practice involved in *United States* v. *United Shoe Machinery Corp.*, 110 F.Supp. 295, 344-45 (D. Mass. 1953), *aff'd per curiam*, 347 U.S. 521, 74 S.Ct. 699, 98 L.Ed. 910 (1954), is equally applicable to IBM's practices with respect to the technological discount, the multiplier, and the "unbundling" of services:

> ... [T]hey are not practices which can be properly described as the inevitable consequences of ability, natural forces, or law. They represent something more than the use of accessible resources, the process of invention and innovation, and the employment of those techniques of employment, financing, production, and distribution, which a competitive society must foster. They are contracts, arrangements, and policies which, instead of encouraging competition based on pure merit, further the dominance of a particular firm. In this sense, they are unnatural barriers; they unnecessarily exclude actual and potential competition; they restrict a free market.

IBM offers a second general defense. As we have said, Greyhound complains that the challenged practices made it more difficult for leasing companies to purchase IBM's general purpose computers. IBM points out that Greyhound did not establish IBM had monopoly power in the market for purchase and sale of general purpose computers as distinguished from the market for leasing such equipment. IBM argues that this omission is fatal to Greyhound's case.

Failure to establish that IBM had monopoly power in the sales market is not a legal bar to holding that IBM violated the Act by using exclusionary sales tactics to maintain its monopoly power in the lease market. The Sherman Act would be violated if IBM had monopoly power in the sales market and used that power to foreclose competition, gain a competitive advantage, or destroy a competitor in the lease market. *See Otter Tail Power Co.* v. *United States,* 410 U.S. 366, 377, 93 S.Ct. 1022, 35 L.Ed.2d 359 (1973); *United States* v. *Griffith,* 334 U.S. 100, 107, 68 S.Ct. 941, 92 L.Ed. 1236 (1948). But a concern with monopoly power in a relevant market also violates section 2 if it willfully maintains that power. *See, e. g., United States* v. *Grinnell Corp., supra,* 384 U.S. at 570-71, 86 S.Ct. 1698. Thus, Greyhound has established a prima facie violation of the Act by showing that IBM employed exclusionary tactics to maintain an existing monopoly in the lease market. *United States* v. *United Shoe Machinery Corp., supra,* 110 F.Supp. at 343. *See Industrial Building Materials, Inc.* v. *Interchemical Corp., supra,* 437 F.2d at 1344-45.[34]

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[34] A prima facie case, as we use the term, is the quantum of proof that will permit the non-movant to survive a motion for a directed verdict. *See, e. g., White* v. *Abrams,* 495 F.2d 724, 729 (9th Cir. 1974); *Archibald* v. *Pan American World Airways, Inc.,* 460 F.2d 14, 17 (9th Cir. 1972). In determining whether the evidence meets this standard, we are required to draw all reasonable inferences from the evidence in the non-movant's favor. *See* note 2 *supra* and accom-

Perhaps IBM intends to make a factual argument rather than a legal one—that absent monopoly power in the sales market, IBM could not in fact have fixed the terms and conditions upon which the equipment was sold, as Greyhound asserts, since Greyhound and other leasing companies could simply have turned to another seller to obtain their equipment.

Greyhound offered direct evidence to prove that the conduct complained of did occur and that it restricted the competition of leasing companies in the leasing market, in which IBM possessed monopoly power. This was sufficient to establish a prima facie case. Greyhound was not required to prove the source of IBM's power to do what Greyhound's evidence indicated IBM in fact did. Greyhound's failure to prove that IBM possessed monopoly power in the sales market may have affected the weight of Greyhound's evidence, but did not render it insufficient to support a verdict.[35]

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panying text. A trier of fact might well draw contrary inferences from the evidence. Moreover, IBM has not yet presented its case and IBM's evidence may demonstrate that the inferences we draw from the present record are not tenable.

[35] Although Greyhound did not attempt to demonstrate that IBM possessed monopoly power in the sales market, the evidence shows that IBM possessed considerable power with respect to leasing companies in this market. The record indicates that leasing companies dealt almost exclusively in IBM equipment. Because of IBM's dominant installed base of rental customers and the high changeover costs involved in switching to computers manufactured by another company, *see* note 16 *supra*, leasing companies depended upon the availability of IBM systems to deal with the large segment of the market represented by current IBM users. One leasing company executive testified he had considerable difficulty leasing non-IBM systems because the market for such equipment was "pretty thin." Moreover, there was testimony that leasing companies could not readily obtain financing to purchase computers other than those manufactured by IBM. This evidence suggests that leasing companies could not shift easily to equipment manufactured by others when IBM altered the terms and conditions of sale adversely to buyers.

III. Attempt to Monopolize

IBM argues that the attempt to monopolize charge was properly taken from the jury because Greyhound failed to offer sufficient proof on any of the following issues: (1) "an appropriate relevant market in which IBM could have attempted to monopolize," (2) "a dangerous probability" of monopolization, (3) "the required specific intent," and (4) "that any action by IBM was predatory in nature."

We have held the evidence sufficient to permit the jury to find that IBM monopolized the submarket for the leasing of general purpose commercial computers. Nonetheless, we assume for the purpose of evaluating Greyhound's claim of attempt to monopolize that we are in error as to the first two issues and that the record would not support a jury finding of even a dangerous probability of monopolization of an appropriate market.

On this premise, Greyhound would still be entitled to go to the jury on the charge of attempt to monopolize if there were sufficient proof on the third and fourth issues. A prima facie case of attempt to monopolize is made out by evidence of a specific intent to monopolize "any part" of commerce, plus anticompetitive conduct directed to the accomplishment of that unlawful purpose. *Knutson* v. *The Daily Review, Inc.*, 548 F.2d 795, 813-14 (9th Cir. 1976); *Twin City Sportservice, Inc.* v. *Charles O. Finley & Co.*, 512 F.2d 1264, 1276 (9th Cir. 1975); *Trixler Brokerage Co.* v. *Ralston Purina Co.*, 505 F.2d 1045, 1051-52 (9th Cir. 1974); *Chisholm Bros. Farm Equip. Co.* v. *International Harvester Co.*, 498 F.2d 1137, 1144-45 (9th Cir. 1974); *Hallmark Industry* v. *Reynolds Metals Co.*, 489 F.2d 8, 11-13 (9th Cir. 1973); *Moore* v. *Jas. H. Matthews & Co.*, 473 F.2d 328, 332 (9th Cir. 1973); *Industrial Building Materials, Inc.* v. *Interchemical Corp.*, 437 F.2d 1336,

1344 (9th Cir. 1970); *Lessig* v. *Tidewater Oil Co.*, 327 F.2d 459, 474-75 (9th Cir. 1964).[36]

If proof of an economic market, technically defined, and proof of a dangerous probability of monopolization of such a market were made essential elements of an attempt to monopolize, as a practical matter the attempt offense would cease to have independent significance. A single firm that did not control something close to 50 percent of the entire market, *see Twin City Sportservice, Inc.* v. *Charles O. Finley & Co., supra,* 512 F.2d at 1274, would be free to indulge in any activity however unreasonable, predatory, destructive of competition and without legitimate business justification. Any concern not dangerously close to monopoly power could deliberately destroy its competitors with impunity. These are not abstract hypotheses. A market share approaching monopoly is not required to enable one concern seriously to impede the capacity of others to compete by use of abusive trade practices. A construction of the Sherman Act that would immunize such practices would be contrary to the purposes of the Act; it is not required by the Act's language or legislative history.[37]

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[36]*Cornwell Quality Tools Co.* v. *C.T.S. Co.*, 446 F.2d 825, 832 (9th Cir. 1971), and *Bushie* v. *Stenocord Corp.*, 460 F.2d 116, 121 (9th Cir. 1972), must be read consistently with this position. *Hallmark Industry* v. *Reynolds Metals Co.*, 489 F.2d 8, 12 & n.3 (9th Cir. 1973). *See also Knutson* v. *The Daily Review, Inc.*, 548 F.2d 795, 814 (9th Cir. 1976); *American Tobacco Co.* v. *United States*, 328 U.S. 781, 785, 66 S. Ct. 1125, 90 L.Ed. 1575 (1946), cited by IBM, is not in point. The Supreme Court limited its inquiry in that case to monopolization; the Court did not review the attempt claim. *Id.* at 784, 66 S.Ct. 1125. *See* 324 U.S. 836, 65 S.Ct. 864, 89 L.Ed. 1400 (1945) (granting certiorari).

[37]The Sherman Act is "a comprehensive charter of economic liberty aimed at preserving free and unfettered competition as the rule of trade." *Northern Pacific Ry.* v. *United States*, 356 U.S. 1, 4, 78 S.Ct. 514, 517, 2 L.Ed.2d 545 (1958). "It is designed to sweep away all appreciable obstructions so that the statutory policy of free trade might be effectively achieved." *United States* v. *Yellow Cab Co.*, 332 U.S. 218, 226, 67 S.Ct. 1560, 1564, 91 L.Ed. 2010 (1947). While § 1 prohibits unreasonable restraints of trade, § 2 makes "the prohibitions of the act all the more complete and perfect by embracing all attempts to reach the end prohibited by the first section, that is, restraints of trade . . ." *Klor's, Inc.* v. *Broadway-Hale Stores, Inc.*, 359 U.S. 207, 211, 79 S. Ct. 705, 708, 3 L.Ed.2d 741 (1959), *quoting Standard Oil Co.* v. *United States*, 221 U.S. 1, 61, 31 S.Ct. 502, 55 L.Ed. 619 (1911). *See also United States* v. *Griffith*, 334 U.S. 100, 106, 68 S.Ct. 941, 92 L.Ed. 1236 (1948).

More specifically, there is support in the decisions and legislative history for the conclusion that §2 was intended to prohibit unreasonable restraints of trade that exclude competition even when they are imposed by a single trader. Cooper, *Attempts and Monopolization: A Mildly Expansionary Answer to the Prophylactic Riddle of Section Two*, 72 Mich.L.Rev. 373, 424-32 (1974). *See also* Note, *Attempt to Monopolize under the Sherman Act: Defendant's Market Power as a Requisite to a Prima Facie Case*, 73 Colum.L.Rev. 1451, 1452-59 (1973); Note, *Prosecutions for Attempts to Monopolize: The Relevance of the Relevant Market*, 42 N.Y.U.L.Rev. 110, 115-16 (1967); Note, *Attempt to Monopolize: The Offense Redefined*, 1969 Utah L.Rev. 704, 709, 711. Such a view is sound in practice since conduct indicative of a specific intent to monopolize generally has no social or economic justification. Turner, *Antitrust Policy and the Cellophane Case*, 70 Harv.L.Rev. 281, 305 (1954).

In the present case the jury could have inferred a specific intent to exclude leasing companies from competition from such evidence as expressions of concern by IBM officials over growing leasing company competition and repeated references by such officials to the goal of limiting sales of IBM equipment and increasing IBM's lease base, and from the way IBM sought to accomplish this goal. Eliminating the technological discount late in the product cycle despite the reality of technological obsolescence, increasing the multiplier by raising maintenance charges in the face of a reduction in maintenance costs, and separating service charges in a way that inflated leasing company investment while reducing their rental income, appear, prima facie, to be anticompetitive activities that impaired competition without a legitimate business purpose.

Greyhound introduced sufficient evidence to carry the attempt to monopolize claim to the jury.

IV. Damages

Greyhound met its burden of introducing sufficient evidence to permit the jury to infer that Greyhound had sustained damage and that IBM had caused it.[38] There was testimony that Greyhound was unable to supplement its inventory with late cycle 360 equipment because of IBM's reduction of the technological discount, and that Greyhound was virtually foreclosed from purchasing System 370 equipment because IBM raised the multiplier.

An IBM internal memorandum prepared when System 370 was announced supports Greyhound's contention that IBM is the primary source of Greyhound's problems. The memorandum summarizes a series of calculations based upon projected multiplier increases consistent with those shown at trial and concludes "the economy will harm the leasing company by an additional 11%." IBM characterizes the document as meaningless and "wholly speculative," and urges that it be disregarded. But a jury could infer that the "IBM actions" referred to were the increases in the multiplier and maintenance rates that in fact occurred, and that the writer believed these practices would have the effect of harming leasing companies nearly twice as much as market factors not in IBM's control.

IBM argues that "[p]erhaps Greyhound Computer is not buying 370 now because . . . it cannot take advantage of the 13% price reduction which is the effect of the investment tax credit." As the very phrasing suggests, IBM's argument presents a question for the jury. Greyhound's evidence indicates that the benefit of the tax credit

[38] *See Zenith Corp.* v. *Hazeltine*, 395 U.S. 100, 114 n.9, 89 S. Ct. 1562, 23 L.Ed.2d 129 (1969); *Continental Ore Co.* v. *Union Carbide*, 370 U.S. 690, 700, 82 S.Ct. 1404, 8 L.Ed.2d 777 (1962); *Knutson* v. *The Daily Review, Inc.*, 548 F.2d 795, 811 (9th Cir. 1976); *Flintkote Co.* v. *Lysfjord*, 246 F.2d 368, 392 (9th Cir. 1957).

was deferred rather than lost. Moreover, given full credence, IBM's contention does not detract from evidence showing that multipliers on the 370 are considerably higher than those on the 360.

IBM suggests that Greyhound may have been unable to purchase 370 equipment because the system had not been on the market long enough to make the technological discount available. But a Greyhound witness testified that because of the increased multiplier, 370 equipment would not be a reasonable investment for leasing even with the discount. It was the jury's function to choose between the conflicting inferences.

For these reasons we reject IBM's contention that the evidence was insufficient to permit a jury finding of injury and causation. IBM also insists, however, that Greyhound "only speculates about how much it might have been damaged by any acts of IBM."

All that is required of the victim of an antitrust violation is evidence showing "the extent of the damages as a matter of just and reasonable inference, although the result be only approximate." *Story Parchment Co.* v. *Paterson Co.*, 282 U.S. 555, 563, 51 S.Ct. 248, 250, 75 L.Ed. 544 (1931).[39] This standard was satisfied here.

A forecast prepared by Greyhound estimated the company could earn $12 million more in after-tax profit between 1971 and 1975 if it could purchase 370 computers on terms as favorable as those available on the 360. IBM points to testimony of Greyhound's president that the report was "meaningless." But the witness's apparent meaning was only that the accuracy of the report as a forecast had been destroyed by changes in IBM's pricing practices.

[39] *Accord, Bigelow* v. *RKO Radio Pictures, Inc.*, 327 U.S. 251, 264, 66 S.Ct. 574, 90 L.Ed. 652 (1946); *Eastman Kodak Co.* v. *Southern Photo Materials Co.*, 273 U.S. 359, 379, 47 S.Ct. 400, 71 L.Ed. 684 (1927); *Knutson* v. *The Daily Review, Inc.*, 548 F.2d 795, 811 (9th Cir. 1976).

Other evidence in the record would permit the jury to estimate the amount of Greyhound's damages by applying Greyhound's profit rate on past business to the volume of business assertedly lost as a result of IBM's conduct. IBM argues that Greyhound's profit rate cannot be determined and, in any event, that Greyhound failed to show any similarity between its past business and the future business from which it was excluded.

IBM contends that past profits can only be calculated when the economic life of the particular equipment has ended. Although the purchase price of the equipment is known, IBM argues that the economic life over which it must be amortized is not, and that there is no agreement as to the proper depreciation rates. Further, IBM asserts, both future rental income and future expenses are unknown and highly speculative.

If IBM's argument were accepted, antitrust damage actions would have only limited and fortuitous application in any business involving long-term capital investment. Whether such a venture will be profitable, and, if so, what the profits will be, is necessarily uncertain until the investment has been fully amortized. The risk that error will occur in resolving this kind of uncertainty must be borne by the antitrust violator where wrongdoing intervenes before the process is complete. *Bigelow* v. *RKO Radio Pictures, Inc.*, 327 U.S. 251, 265, 66 S.Ct. 574, 90 L.Ed. 652 (1946); *Story Parchment Co.* v. *Paterson Co., supra,* 282 U.S. at 563, 51 S.Ct. 248; *Eastman Kodak Co.* v. *Southern Photo Materials Co.,* 273 U.S. 359, 379, 47 S.Ct. 400, 71 L.Ed. 684 (1927).

Greyhound had an established business and the future profits could be shown by past experience. *Eastman Kodak Co.* v. *Southern Photo Materials Co., supra,* 273 U.S. at 379, 47 S.Ct. 400. The only condition to a calculation of damages on this basis is that "the market conditions in the

two periods were similar but for the impact of the violation." *Pacific Coast Agricultural Export Ass'n* v. *Sunkist Growers, Inc.,* 526 F.2d 1196, 1207 (9th Cir. 1975). As we have seen, Greyhound sought to prove loss of business and consequent damage from two basic courses of conduct: IBM's failure to grant late cycle discounts on System 360 equipment, and IBM's manipulation of the multiplier and service charges on System 370 equipment.

It is true that at the time of trial Greyhound's 360 equipment was still on lease with much of its value not yet depreciated, and that 370 equipment was still new on the market. However, the record afforded a reasonable basis for estimating the economic life of both systems and the loss of profits resulting from IBM's interference with Greyhound's participation in the distribution of both.

Three "generations" of IBM computers are involved in the computation—the second generation introduced in 1958, the third (System 360) in 1964, and the so-called fourth (System 370) in 1970. Greyhound's profit experience with second generation equipment provides a reasonable basis for computation of damages resulting from Greyhound's exclusion from late cycle leasing of 360 equipment, and Greyhound's profit experience in leasing 360 equipment serves as an appropriate basis for measuring Greyhound's loss resulting from its exclusion from leasing 370 equipment.

There was ample evidence that the economic life span of each of these generations of equipment was about 10 years. The jury could reasonably assume that a straight-line depreciation policy of 10 percent per year was proper, and testimony supported the view that a 10 percent residual value was reasonable. Greyhound's profit calculations were made on the basis of these assumptions.

Greyhound began purchasing second generation equipment in about the fourth or fifth year of the product cycle,

a point roughly comparable to that in the economic life of System 360 when purchases began to decline because no late cycle discount was available. Greyhound invested $48 million in second generation equipment and earned book profits of $4.25 million.[40] These profits, made with the benefit of the technological discount, afforded a fair basis for calculating the extent of damages caused by the elimination of the technological discount on System 360.

Greyhound purchased 360 equipment almost exclusively in the early years of its product cycle. These purchases were made prior to IBM's multiplier increase. Greyhound invested $171 million in 360 equipment, and the expected profit was at least $20 million. These profits, made with the benefit of the more favorable multiplier, afforded the basis for a just and reasonable inference of the amount of damage sustained by Greyhound from its preclusion from early cycle 370 purchases by IBM's manipulation of the multiplier.

Finally, Greyhound introduced testimony that it had planned to invest at least $50 million per year in IBM computer equipment in the years 1969 through 1972, but that it was unable to do so because of IBM's purchase-restricting practices. Such an annual investment would appear reasonable in light of Greyhound's investments in

[40]Greyhound argues that its second generation profit figure is over $13 million if $9.5 million received in settlement of litigation is added to the $4.25 million. Since the $4.25 million figure provides one reasonable basis for calculating Greyhound's damages due to the reduction of the technological discount, we need not decide whether Greyhound has made a sufficient showing that the $9.5 million should also be included.

IBM contends that these profit figures ignore the fact that Greyhound sold some second generation equipment at less than book value after Greyhound elected to devote its resources to third generation equipment. But there is no evidence that any losses sustained in the sale of second generation equipment were not deducted from book profits to arrive at the $4.25 million figure.

360 equipment. *See* note 26 *supra.* Using as a guideline the profit figures Greyhound presented for its $171 million investment in 360 equipment, the jury could have calculated Greyhound's damages in these years.[41]

V. Evidentiary Rulings

Greyhound challenges three of the trial court's evidentiary rulings.

1. Greyhound contends that the trial court erred in modifying an earlier ruling of the judge designated pursuant to 28 U.S.C. § 1407 to preside over the pretrial and discovery proceedings in this case. Greyhound asserts that an order of the pretrial judge required IBM to object by a given date to the admission of documents obtained by discovery, that IBM waived its right to object on the ground of hearsay by failing to make such an objection by the date fixed and that the trial judge erroneously permitted IBM to raise the hearsay objection at trial.

One district judge in a multi-judge court may modify the interlocutory order of another for "cogent reasons." The question on review is whether the second judge abused his discretion. *United States* v. *Desert Gold Mining Co.,* 433 F.2d 713, 715 (9th Cir. 1970); *Tanner Motor Livery, Ltd.* v. *Avis, Inc.,* 316 F.2d 804, 809 (9th Cir. 1963); *Castner* v. *First National Bank,* 278 F.2d 376, 380 (9th Cir. 1960). Greyhound has not indicated what the excluded documents were, what they contained, or what

[41]Most of the testimony concerning Greyhound's damages came from Greyhound's president. An interested witness may testify as to the amount of damage so long as the record reflects his competency and the factual basis for his conclusions. *See Flintkote Co.* v. *Lysfjord,* 246 F.2d 368, 394 (9th Cir. 1957). Since this condition is satisfied here, it is for the jury to determine the weight and credit to be accorded his testimony. *See Story Parchment Co.* v. *Paterson Co.,* 282 U.S. 555, 567, 51 S.Ct. 248, 75 L.Ed. 544 (1931).

they would prove. It has demonstrated no prejudice, simply asserting without particularization that it was forced to alter its strategy at trial. On the basis of this showing, we decline to hold the trial judge abused his discretion.

2. The district court excluded all reference to a consent decree entered into between IBM and the United States in settlement of antitrust litigation some 20 years ago. The decree required IBM to abandon its prior "lease only" policy and offer its computers for sale, and included other provisions that contributed to the establishment of leasing companies. Determining whether such a decree should be placed before the jury requires a balancing of probative value against prejudicial impact, a task committed to the discretion of the trial court. *Control Data Corp.* v. *IBM Corp.*, 421 F.2d 323, 326 (8th Cir. 1970). See *generally City of Burbank* v. *General Electric Co.*, 329 F.2d 825 (9th Cir. 1964). In this case, as Greyhound candidly admits, striking the balance "is a close question." We are unable to say the trial court abused its discretion in resolving it as it did. There is merit, however, in Greyhound's contention that IBM's opening argument suggests that the trial judge must be alert to protect Greyhound from arguments that may mislead the jury unless the jury is informed of the decree and its terms.

3. Finally, Greyhound objects to rulings by the trial court precluding testimony as to manufacturers that have gone out of busines. The rulings did not prejudice Greyhound since the desired testimony was later admitted.

VI. Breach of Contract

We agree with the district court that Greyhound's separate claim that IBM breached a contractual obligation to provide services to first users of IBM machines was not supported by sufficient evidence to carry it

to the jury. Viewed most favorably to Greyhound, the evidence showed only that some unspecified customers had bargained on an individual basis for some unspecified allotment of only generally defined services, and that some undetermined portion of these services had been withheld.

Affirmed in part, reversed in part, and remanded for further proceedings in accordance with this opinion.

MOORE, Circuit Judge, concurring.

I concur in so much of the majority opinion as affirms the direction of a verdict on the breach of contract count and I also concur in the remand for trial of the monopolization and the attempt to monopolize claims. Since a remand requires a trial, in my opinion any comments on the effect of such evidence as may be developed therein is premature and inadvisable. All that is before us is the evidence adduced by plaintiff in its direct case. Ultimately the case will go to the jury on all the evidence offered by plaintiff and defendant. This evidence will have to be weighed by the jury in the light of a judge's charge as to the legal background against which it will resolve the facts, including motive, intent and credibility.

As to evidentiary rulings, I would also leave them to the trial judge. He should be allowed to exercise his discretion to admit or exclude as the situation may then exist rather than be told in advance how to rule.

There will be ample opportunity for a reviewing court to examine the jury's verdict, the court's ruling on evidence, the charge and the evidence upon which it is based, when, as and if, the record comes before us. In short, all we are required to do at the present time is to pass upon whether there were questions of fact to be resolved by a jury. We say that there were. Until we know the jury's answer, we should not, even in an anticipatory or declaratory way, in my opinion, make any pronouncement as to a record yet unmade.

APPENDIX C

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STATUTORY PROVISIONS

Section 2 of the Sherman Act (15 U.S.C. § 2) provides:

> "Every person who shall monopolize, or attempt to monopolize, or combine or conspire with any other person or persons, to monopolize any part of the trade or commerce among the several States, or with foreign nations, shall be deemed guilty of a misdemeanor, and, on conviction thereof, shall be punished by fine not exceeding fifty thousand dollars, or by imprisonment not exceeding one year, or by both said punishments, in the discretion of the court."

Section 4 of the Clayton Act (15 U.S.C. § 15) provides:

> "Any person who shall be injured in his business or property by reason of anything forbidden in the antitrust laws may sue therefor in any district court of the United States in the district in which the defendant resides or is found or has an agent, without respect to the amount in controversy, and shall recover threefold the damages by him sustained, and the cost of suit, including a reasonable attorney's fee."

Rule 50(a), Fed. R. Civ. P., provides:

> **"Motion for Directed Verdict: When Made; Effect.** A party who moves for a directed verdict at the close of the evidence offered by an opponent may offer evidence in the event that the motion is not granted, without having reserved the right so to do and to the same extent as if the motion had not

been made. A motion for a directed verdict which is not granted is not a waiver of trial by jury even though all parties to the action have moved for directed verdicts. A motion for a directed verdict shall state the specific grounds therefor. The order of the court granting a motion for a directed verdict is effective without any assent of the jury."

APPENDIX D

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RECORD AS TO THE ELECTRONIC DATA PROCESSING INDUSTRY AND IBM's PARTICIPATION IN THE INDUSTRY

1. The EDP industry has been characterized by rapid entry of competitors and very substantial growth.

(a) The Court Census shows the number of EDP companies climbed from 11 in 1952 to 1,757 in 1970—an increase of 159 times in 18 years.

(b) The Court Census shows the EDP revenue of those companies grew from $45 million in 1952 to $9.4 billion in 1970—an increase of 208 times in 18 years.

(c) One of Greyhound's witnesses testified there were 25 manufacturers of complete EDP systems in 1962 (DX G-4; Tr. 3292), 52 EDP systems manufacturers in 1969 (DX H-4; Tr. 3295), and 62 EDP systems manufacturers in 1972 (Tr. 3302). Another Greyhound witness testified that as many as 100 companies had recently begun to manufacture what he described as "minicomputers" (Tr. 1465) which have created competitive alternatives "to larger systems" (PX 577 at p. 44; Tr. 1626-27).*

(d) Peripheral equipment—equipment other than the central processing unit—constitutes about 50% to 60% of the value of an EDP system (DX B-4 at p. 48; Tr. 3124-26; Tr. 1624). One witness testified that sales of the companies in this field would grow 20 times by 1976 (Tr. 3145). Those companies have also branched out into leasing full EDP systems, using a combination of their own, IBM's and other manufacturers' hardware (DX D-4; Tr. 3182-84).

(e) Another form of competition comes from leasing companies such as Greyhound Computer and Grey-

*The figures exclude companies like Greyhound which lease but do not manufacture complete computer systems.

hound Leasing. In 1966 there were between 15 and 30 leasing companies in the United States (Tr. 589-90). That number grew to at least 150 by 1969 (Tr. 589-90), not including finance companies and banks which offer competitive financial services (Tr. 590, 596).* By the end of 1969, leasing companies had close to $2 billion worth of EDP systems competing with IBM and other manufacturers of EDP equipment (Tr. 1971-72; DX D-2 at pp. 2-3; Tr. 2018-19).

2. IBM's share of EDP revenue, in whatever category chosen, has steadily declined.

(a) The district court in *Telex* v. *IBM* had before it the same industry census that is in evidence in this case. The court in *Telex* found that "IBM's share of reported EDP revenue . . . declined from 64.1% in 1952, to 35.1% in 1970, and there have been comparable declines" in other revenue categories.** (367 F. Supp. at 286).

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*Leasing companies routinely assert that they compete with those institutions as well as other leasing companies and EDP equipment manufacturers (DX X at p. 13; Tr. 598-99; DX Z-1, at pp. 11-12; Tr. 1834).

**The district court in *Telex* also found that IBM's 1970 share of reported EDP revenue for hardware and leasing companies with revenues in excess of $5 million was 42.3%; that IBM's share of reported EDP revenues for hardware companies with revenues in excess of $5 million was 44.9%; and that IBM's 1970 share of reported EDP product revenue was 44.5%. (367 F. Supp. at 286)

The district court in *Telex* further cited statistics obtained from the U. S. Bureau of the Census, as follows:

IBM's share of the value of 1971 shipments of "electronic computers and peripheral equipment, except parts"	36.7%
IBM's share of the value of 1971 shipments of "Electronic Computers, Digital, General Purpose"	40.9%
IBM's share of the value of 1971 shipments of "direct access storage units...."	30.4%
IBM's share of the value of 1971 shipments of "serial access auxiliary storage units...."	45.6%
IBM's share of the value of 1971 shipments of printers	38.3%

And, the court there noted, "[t]hese shares have been declining." (*Id.*)

(b) In reversing the district court's judgment for *Telex* on the antitrust issues, the Tenth Circuit relied upon IBM's declining market share (510 F.2d at 898-99, 915-16), and specifically upon the district court's findings based upon the industry census (510 F.2d at 916 n.17).

(c) Even in the lease "submarket" defined in this case by the court below, IBM's share fell almost 20 percentage points in just six years (App. B, at pp. 14a-15a).

3. IBM is the industry leader in technological progress and price/performance improvement.

(a) The largest computer of the first generation of EDP equipment in 1955, Sperry Rand's Univac I, had only one-tenth the power of, but cost 10 to 20 times as much as, IBM's smallest computer in 1970, the System 3, which is a price/performance improvement of 100 to 200 times (Tr. 1605).

(b) Between immediately succeeding product cycles or "generations" of computers, there have also been substantial product improvements. For example, IBM's System 370 equipment (announced in 1970) was nine times faster than IBM's System 360 equipment (announced in 1964) (Tr. 1510-11). Likewise, System 360 equipment was a "quantum jump" in performance and capability over the equipment of the preceding second generation (Tr. 989-90).

(c) IBM is the leader in programming (Tr. 1469), disk storage technology (Tr. 1509) and transistors (Tr. 1509-10).

(d) IBM was the first company to provide a "sophisticated operating system" which is "essential to the useful functioning of the machine" (Tr. 1469).

(e) Particular examples of the performance and reliability of IBM EDP products came from all seven of Greyhound's customer witnesses who, without reservation, characterized IBM's products as "superb", "second to none" and the like (Tr. 883, 915, 934, 951, 2044, 2083, 2099).

4. IBM's success must be considered in light of the fact that transactions typically involve large governmental, business and educational customers (Tr. 3167) who choose between products and services after sophisticated analyses of price and performance of the variety of boxes and systems offered (Tr. 874-75, 883-84, 886, 910, 940-41, 951, 1401, 1414-20, 1423-26, 2035, 2037, 2074-76, 2085, 2087, 2090-91).